

Mansoura University  
Faculty of Medicine

Pathology Departement  
Final 3<sup>rd</sup> years exam

Paper I - General pathology

Date: 11-8-2008

Time allowed: 2 hours

**Answer all the following questions**

**I- Clinical cases:-** ( 15 marks 5 for each case)

Case 1:

- A diabetic patient has a localized lesion forming multiple communicating suppurative foci in the skin and subcutaneous fat of the back of the neck discharging pus through several openings

1- What is the most probable diagnosis

.....

2- What is the causative organism

.....

3- Explain the development of multiple suppurative foci in this lesion

.....

.....

.....

.....

Case 2:

2- A 55 years old female patient presented with left breast mass 5x3 cm. in diameter, hard in consistency with irregular outlines and fixed to the underlying muscle. The axillary lymph nodes on the left side were found to be enlarged, hard, fixed and painless

1. Which type of tumor do you expect this mass to be

a. Benign

or b. Malignant

- Why

.....

.....

.....

2- In the pathology report you must comment on the tumor grade and stage...

.....

.....

.....

What is meant by

- Tumor grade

.....  
.....

- Tumor stage

.....  
.....

3- What is the most probable cause of lymph node enlargement in this patient

.....

Case 3:-

3- A 47 year old male farmer patient presents with painful micturation with terminal hematuria. Urine examination reveals pus cells, RBCs and Schistosoma hematobium ova. Cystoscopic examination of the urinary bladder showed tiny ulcers, many sandy patches and few polyps

1. What is hematuria

.....

2. Gross appearance and microscopic picture of sandy patches

Gross.....

.....  
.....

Microscopic.....

.....  
.....

3- Enumerate epithelial changes that can occur in the urinary bladder of a bilharzial patient

a.....

b.....

c.....

d.....

**II- Define: (10 Marks one mark each)**

1- Abscess

.....  
.....



2- Resolution

.....  
.....

3- Septicemia

.....  
.....

4- Apoptosis

.....  
.....

5- Amyloidosis

.....  
.....

6. Adenoma

.....  
.....

7- Tumor suppressor gene

.....  
.....

8- Thrombus

.....  
.....

9- Dysplasia

.....  
.....

10- Primary pulmonary complex

.....  
.....

1

3

1

III- Enumerate: (10 Marks, 2 marks each)

1- 4 types of giant cells

- a.....
- b.....
- c.....
- d.....

2- 4 Types of emboli

- a.....
- b.....
- c.....
- d.....

3- 4 genes that regulate normal cell growth

- a.....
- b.....
- c.....
- d.....

4- 4 Functions of fluid exudate

- a.....
- b.....
- c.....
- d.....

5- 4 Pre-malignant lesions

- a.....
- b.....
- c.....
- d.....

IV- Write the microscopic appearance ( M/E) in each of the followings(10 Marks, 2 marks each)

1 • Tonsils in a patient with diphtheria

- .....
- .....
- .....
- .....

2 • Granulation tissue

- .....
- .....
- .....

III- Enumerate: (10 Marks, 2 marks each)

1- 4 types of giant cells

- a.....
- b.....
- c.....
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2- 4 Types of emboli

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5- 4 Pre-malignant lesions

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- c.....
- d.....

IV- Write the microscopic appearance ( M/E) in each of the followings(10 Marks, 2 marks each)

1 • Tonsils in a patient with diphtheria

- .....
- .....
- .....
- .....

2 • Granulation tissue

- .....
- .....
- .....

3 • Lungs in a patient with mitral stenosis

.....  
.....  
.....  
.....

4 • Papilloma of the skin

.....  
.....  
.....  
.....

5 • Hilar lymph node in primary pulmonary tuberculosis.

.....  
.....  
.....  
.....

**V- Give the Gross appearance of each of the following (10 Marks. 2 marks each)**

1 • Solid organ with amyloid deposition

.....  
.....  
.....  
.....

2 • Rodent ulcer

.....  
.....  
.....  
.....

3 • A leg with dry gangrene

.....  
.....  
.....  
.....

4 • Benign cystic teratoma

.....  
.....  
.....  
.....

5● Lung with chronic fibrocaseous tuberculosis

**VI-Write the scientific name of the following (10 marks, one mark each)**

<u>1</u>	Pre-invasive stage of carcinoma	
<u>2</u>	Malignant tumor of mesenchymal origin	
<u>3</u>	Directional movement of leukocytes towards an irritant	
<u>4</u>	An inflammatory process in which lymphocytes, plasma cells and macrophages predominate.	
<u>5</u>	Necrosis due to acute ischemia	
<u>6</u>	Death of group of cells within the living body	
<u>7</u>	Replacement of damaged tissue by a healthy tissue of the same kind.	
<u>8</u>	Calcium deposition in healthy tissue with increased blood calcium level	
<u>9</u>	Decreased size of an organ due to decreased size and/or number of its component cells	
<u>10</u>	Lesion on the external genetalia caused by syphilitic infection	

15

**VII- List 4 differences between each of the followings: (10 Marks. 2 marks each)**

**1- Healing of skin wounds by primary and secondary intension**

	Primary intension	Secondary intension

**2- Exudate and transudate**

	Exudate	Transudate



- Benign and malignant tumors

	Benign	Malignant

l- Fine and coarse bilharzial priportal fibrosis

	Fine	Coarse

• 5- Thrmbus and post motem clot

	Thrombus	Clot

GOOD LUCK



**MANSOURA UNIVERSITY**  
**FACULTY OF MEDICINE**  
**DEPARTMENT OF PATHOLOGY**

*Final Examination for 3<sup>rd</sup> Year Medical Student*

*Paper II*

*Special Pathology*

07/5/2008

*This examination paper consists of (10 ) pages including the cover.*

*Time allowed is 2 hours..*

<i>Clinical Cases (3x5= 15 marks)</i>		
<i>Define (10x1=10 marks)</i>		
<i>Enumerate(2x5=10 marks)</i>		
<i>Short account (2x5=10 marks)</i>		
<i>Microscopic 2x5=10 marks</i>		
<i>Gross 10x1=10 marks</i>		
<i>Compare 2.5x4= 10 marks</i>		
<i>Total 75 marks</i>		

**TOTAL MARK**

**CODE NUMBER**

**CODE NUMBER**

**STUDENT'S FULL NAME :** .....

**STUDENT'S ROLL NUMBER :** .....

2007 / 2008

Mansoura University  
Faculty of Medicine

Pathology Departement  
Final 3<sup>rd</sup> years exam

Paper II – Special pathology

Date: 7-5-2008

Time allowed: 2 hours

Answer all the following questions

I- Clinical cases:- ( 15 marks 5 for each case)

☛ Case I

*A 21 years old medical student presents by acute onset of fever (39c) ,nausea , vomiting with pain in the right iliac fossa and peri-umbilical region. Abdominal examination revealed rebound tenderness most evident at the McBurney point.*

- a. The most probable diagnosis of the case is.....
- b. Pathogenesis of the case is .....  
.....  
.....  
.....
- c. In such cases you will recommend a white blood cell count to assess for.....
- d. Possible complications of the case include  
1-.....  
2- .....  
3- .....

☛ Case II

*A 17 years old boy presents with pain and swelling around his left knee for the past month. Radiograph demonstrates periosteal elevation with sun-ray appearance...*

- a. The most probable diagnosis of the case.....
- b. Cause of the sun-ray appearance in the radiograph is.....

- .....
- c. M/E of the tumor will reveal .....
- .....
- .....
- d. Mode of distant spread of this tumor is mainly by.....
- e. Prognosis of this tumor depends upon .....
- .....
- .....
- .....

### **Case III**

*A 45 years old male patient presents with frank painless hematuria. Examination reveals a flank mass and ultrasound shows an 8 cm mass at the upper pole of the left kidney. Left nephrectomy was done.*

- a. The most probable diagnosis of the case is.....
- b. Gross appearance of the mass is .....
- .....
- .....
- .....
- c. M/E of the mass may show.....
- .....
- .....
- .....
- d. Prognosis of the case depends upon.....
- .....
- .....
- .....
- e. Other causes of hematuria include .....
- 1- .....

2- .....

3- .....

**II- Define : (10 Marks, one each)**

1- Vegetation

.....  
.....

2- Chronic bronchitis

.....  
.....

3- Choriocarcinoma

.....  
.....

4- Barrett's esophagus

.....  
.....

5- Multiple myeloma

.....  
.....

6- Seminoma

.....  
.....

7- Hashimoto thyroiditis

.....  
.....

8- Osteoporosis

.....  
.....



9- Hydrocephalus

.....  
.....

10- Fibroadenoma of the breast

.....  
.....

**III- Enumerate ( 10 marks, 2 marks each)**

**1- Ulcers of the intestine**

- a. ....
- b. ....
- c. ....
- d. ....

**2- Causes of lung abscess**

- a. ....
- b. ....
- c. ....
- d. ....

**3- Complications of urinary stones**

- a. ....
- b. ....
- c. ....
- d. ....

**4- Causes of acquired liver cirrhosis**

- a. ....
- b. ....
- c. ....
- d. ....

**5- Types of cerebral aneurysms**

- a. ....
- b. ....
- c. ....
- d. ....

**IV- Write a short account on each of the following: (10 marks, 2 marks each)**

1- Pathogenesis of atheroma

.....

.....

.....

.....

2- Molar pregnancy

.....

.....

.....

.....

3- Pneumoconiosis

.....

.....

.....

.....

4- Microscopic types of Hodgkin's lymphoma

.....

.....

.....

.....

5- Peripheral neuritis

.....

.....

.....

.....

4- Write the microscopic appearance (M/E) of each of the following:

1- Kidney in a patient with prolonged benign hypertension

.....

.....

.....

2- Heart in a patient with rheumatic fever

.....

.....

.....

3- Tumor of the uterine cervix caused by human papilloma virus

.....

.....

.....

4- Post-hepatic (necrotic) cirrhosis

.....

.....

.....

5- Locally malignant tumor in the epiphysis of a long bone

.....

.....

.....



VI- Write the gross picture of each of the following: (10 marks.2 marks each)

1- chronic Peptic ulcer

.....  
.....  
.....  
.....

2- Bronchiectasis

.....  
.....  
.....  
.....

3- Benign prostatic hyperplasia

.....  
.....  
.....  
.....

4- Chronic pyelonephritis

.....  
.....  
.....  
.....

5- Skin manifestations in cancer breast

.....  
.....  
.....  
.....

VII- Compare ( 10 marks, 2.5 each)

1- lobar pneumonia and bronchopneumonia

	Lobar pneumonia	Bronchopneumonia
Definition		
Type of inflammation		
Causative organism		
Stages		
Clinical course		

2- Acute and subacute bacterial endocarditis

	Acute bacterial endocarditis	subacute bacterial endocarditis
Causative organism		
State of the valve		
Emboli detached cause		
Associated toxemia		
Prognosis		

### 3- Nephritic and nephrotic syndrome

	nephrotic syndrome	Nephritic syndrome
Proteinuria		
Hematuria		
Type of casts		
Type of edema		
Causes		

### 4- Ulcerative colitis and Crohn's disease

	Ulcerative colitis	Crohn's disease
Site		
Depth		
Granulomas		
Pseudopolyps		
Malignant potential		

GOOD LUCK





**MANSOURA UNIVERSITY**  
**FACULTY OF MEDICINE**  
**DEPARTMENT OF PATHOLOGY**

*Final Examination for 3<sup>rd</sup> Year Medical Student*

*Paper I*

*General Pathology*

**06/5/2008**

*This examination paper consists of (10 ) pages including the cover.*

*Time allowed is 2 hours..*

<i>Clinical Cases (3x5= 15 marks)</i>		
<i>Define (10x1=10 marks)</i>		
<i>Enumerate(2x5=10 marks)</i>		
<i>Microscopic (2x5=10 marks)</i>		
<i>Gross 2x5=10 marks</i>		
<i>Scientific name 10x1=10 marks</i>		
<i>Compare 2x5= 10 marks</i>		
<i>Total 75 marks</i>		

**TOTAL MARK**

**CODE NUMBER**

\*\*\*\*\*

**CODE NUMBER**

**STUDENT'S FULL NAME :** .....

**STUDENT'S ROLL NUMBER :** .....

2007 / 2008

*Mansoura University  
Faculty of Medicine*

*Pathology Department  
Final 3<sup>rd</sup> years exam*

*Paper I - General pathology*

**Date: 6-5-2008**

**Time allowed: 2 hours**

**Answer all the following questions**

**I- Clinical cases:-** ( 15 marks 5 for each case)

**Case 1:**

-A 55 years old woman with gastric carcinoma presents with ascitis and bilateral ovarian masses. Sections from the ovarian masses reveal malignant tumor with signet ring cells.

- a. The most probable diagnosis of the case is.....
- b. Mode of spread in this case is by.....
- c. Other modes of spread of malignant tumors include...

- 1-
- 2-
- 3-

**Case 2:**

2- A 55 years old male presents with dyspnea, orthopnea and expectoration of blood tinged sputum together with enlarged tender liver and generalized edema. The case was diagnosed as heart failure

- a. What do you expect the case to be

- 1- Right sided heart failure                      2- Left sided heart failure
- b- Describe the gross and microscopic picture of the liver in this case

**Gross**

.....  
.....  
.....



Microscopic

.....  
.....  
.....

3- What are the possible causes of edema in this patient?

.....  
.....  
.....

Case 3:-

3- A 35 year old heavy smoker male patient presents with low grade fever, night sweats cough and expectoration . Chest X ray revealed apical cavity. Bacteriological examination of the sputum revealed Zeal Nelson positive bacilli. Lung lobectomy was done

- a. The most probable diagnosis of the case is.....
- b. Gross appearance of resected lung lobe

.....  
.....  
.....

c. Microscopic.

.....  
.....  
.....

**II- Define: (10 Marks one mark each)**

1- Chemotaxis

.....  
.....

2- Granuloma

.....  
.....

3- Healing by primary intension

.....

.....

4- Tumor grade

.....

.....

5- Infarction

.....

.....

6. Pyemia

.....

.....

7- Paraneoplastic syndrome

.....

.....

8- Dystrophic calcification

.....

.....

9- Chancre

.....

.....

10- Hamartoma

.....

.....

**III- Enumerate: (10 Marks. 2 marks each)**

1- Cardinal signs of acute inflammation

a.....

b.....

c.....

d.....

- Types of necrosis

.....  
.....  
.....  
.....

- Bilharzial lesions in hollow organs

.....  
.....  
.....  
.....

- Causes of defective phagocytosis

.....  
.....  
.....  
.....

- Embryonal tumors

.....  
.....  
.....  
.....

V- Write the microscopic appearance ( M/E) in each of the followings(10 Marks. 2 marks each)

1 • liver in a patient with multiple myeloma

.....  
.....  
.....  
.....

2 • Compact mass formed inside a blood vessel during life

.....  
.....  
.....  
.....

3 • Spleen in a Bilharzial patient

.....

.....

.....

.....

4 • Ulcer at the inner canthus of the eye with rolled in edges

.....

.....

.....

.....

5 • Tissue formed during the process of repair

.....

.....

.....

.....

**V- Give the Gross appearance of each of the following (10 Marks. 2 marks each)**

1 • Carcinoma of a hollow organ

.....

.....

.....

.....

2 • Lungs in a patient with mitral stenosis

.....

.....

.....

.....

3 • Spleen in a case of septicemia

.....

.....

.....

.....



4 • Early liver changes in an alcoholic patient

.....

.....

.....

5 • Ghon's focus

.....

.....

.....

**/I-Write the scientific name of the following (10 marks, one mark each)**

<u>1</u>	One chemical mediator responsible for pain production in acute inflammation.	
<u>2</u>	A cystic lesion in the ovary containing benign tissues derived from the three germ layers	
<u>3</u>	Type of repair in a large, gaping infected wound	
<u>4</u>	Abnormal type of calcification with normal blood calcium level	
<u>5</u>	Senile atrophic heart with brown pigmentation	
<u>6</u>	Circulation and impaction of unsoluble material in blood	
<u>7</u>	Atrophic mucosa of the urinary bladder due to dense submucosal ova deposition	
<u>8</u>	Change of one type of epithelium to another type of the same category	
<u>9</u>	A tumor marker of hepatocellular carcinoma and yolk sac tumors of the gonads.	
<u>10</u>	A disease of the vertebral bodies characterized by deformity, cold abscess and paraplegia	

**IV- Compare : (10 Marks, 2 marks each)**

**1- Necrosis and apoptosis**

	Necrosis	Apoptosis

**2- Acute and chronic inflammation**

	Acute inflammation	Chronic inflammation

3- Primary and secondary tuberculosis

	Primary tuberculosis	Secondary tuberculosis

4-Dry and moist gangrene

	Dry gangrene	Moist gangrene

Hyperplasia and neoplasia

	Hyperplasia	Neoplasia

GOOD LUCK



**Mansoura University**  
**Faculty of Medicine**  
**Department of : Pathology**  
**Final year Examination**

**Short Essay Questions**  
**Time Allowed 2 Hours**  
**May 2007**  
**Date : 4/6/2007**

**1-A: Define each of the following of , with example: (5 Marks)**

- a-Embryonal tumours
- b-Tumour markers
- c-Cystitis cystica
- d-Granuloma
- e-Atrophy

**B-Lactating female complaining of hard mass on the breast which is red, hot & tender with 38 degree fever .**

- a-What is the possible diagnosis (2 Marks)
- b-Give microscopic picture of the lesion (4 Marks)
- c-Give the possible complications (4 Marks)

**2-Give an account of : (15 Marks)**

- a-Stagins of tumours
- b-Out come of acute inflammation
- c-Pott's diseases

**3-Do as shown in trackets: (15 Marks)**

- a-Embolus (types & complactions)
- b-Syphilitic aortitis (pathogenesis, site & complications)
- c-Genes which regulate cellular proliferation

**4-Gross picture of : (15 Marks)**

- a-Spleen in apatient with circulation, multiplication of large number of virulent micro-organisms & their toxins in the blood
- b-Types of secondary pulmornary T.B
- c-Liver in advanced Bilharzasis.

**5-Describe the microscopic picture of : (15 Marks)**

- a-Benign hamartomatous lesion in the blood vessels
- b-Epithelial changes of urinary bladder ~~in bladder~~ in Bilharzasis.
- c-Locally malignant tumour of the skin
- d-Membranous inflammation
- e-Keloid

**GOOD LUCK**

*Mansoura University  
Faculty of Medicine  
Department of :  
Final year Examination*

*Short Essay Questions  
Time Allowed 2 Hours  
August 2007  
Date 20/8/2007*

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**Special Pathology**

- 1-Give the gross picture of : (10 Marks)  
a-Kidney in chronic pyelonephritis.  
b-Crohn's disease.
- 2-Enumerate & give microscopic picture of one of them: (12 Marks)  
a-Small intestinal ulcers.  
b-Causes of enlarged spleen.
- 3-Patient with hepatitis C viral infection, latter on he developed shrunken and nodular liver. (6 Marks)  
a-What is the possible diagnosis?  
b-Give its complications.
- 4-Mention one cause only for : (5 Marks)  
a-Coughing of blood.  
b-Onion -skin appearance in x-ray film of middle part of tibia in a 13 years old child  
c-Gangrene of intestine  
d-Pathological fracture  
e-2ry amyloidosis
- 5-Enumerate types & gross picture of : (12 Marks)  
a-Lymphoma  
b-Emphysema
- 6-Give the microscopic picture of : (10 Marks)  
a-Benign tumour of breast duct  
b-Glioma
- 7-Give an account of : (5 Marks each )  
a-Effect of Rheumatic fever on heart  
b-Seminoma  
c-Endometriosis  
d-Peripheral neuritis

**Pathology Ex.**

**I-What is the diagnosis and microscopic picture of the following ?**

1-Lymph node draining rodent ulcer.

2-Small contracted kidney of patient with pyuria.

3-Lung of old patient with fever , productive cough & patchy consolidation.

4-Pericardium from patient with recent myocardial infarction.

(30 Marks)

**II-Describe the gross morphology of :**

5-Carcinoma of colon.

6-Liver from patient with portal hypertension and past history of HCV infection.

7-T.B. (all possible types).

8-Thyroid from patient with prolonged iodine deficiency .

(30 Marks)

**III-Give short account of :**

9-Lobular carcinoma of breast.

10-Osteoporosis.

11-Teratoma .

12-Prostatic hyperplasia.

(30 Marks)

**IV-Enumerate.**

13-Causes of peripheral neuropathy.

14-Causes of splenomegaly.

15-causes of vaginal bleeding.

16-Manifestation of subacute infective endocarditis.

(30 Marks )

**GOOD LUCK**

ملحوظة: تسليم علب الشرائح قبل دخول الامتحان الشفوي .



**Pathology Ex.**

**I-What is the diagnosis and microscopic picture of the following ?**

- 1-Lymph node draining rodent ulcer.
- 2-Small contracted kidney of patient with pyuria.
- 3-Lung of old patient with fever , productive cough & patchy consolidation.
- 4-Pericardium from patient with recent myocardial infarction.

**(30 Marks)**

**II-Describe the gross morphology of :**

- 5-Carcinoma of colon.
- 6-Liver from patient with portal hypertension and past history of HCV infection.
- 7-T.B. (all possible types ).
- 8-Thyroid from patient with prolonged iodine deficiency .

**(30 Marks)**

**III-Give short account of :**

- 9-Lobular carcinoma of breast.
- 10-Osteoporosis.
- 11-Teratoma .
- 12-Prostatic hyperplasia.

**(30 Marks)**

**IV-Enumerate.**

- 13-Causes of peripheral neuropathy.
- 14-Causes of splenomegaly.
- 15-causes of vaginal bleeding.
- 16-Manifestation of subacute infective endocarditis.

**(30 Marks )**

**GOOD LUCK**

ملحوظة: تسليم علب الشرائح قبل دخول الامتحان الشفوي .

**Mansoura University**  
**Faculty of Medicine**

**Time allowed :1 hour**  
**Date : 28 /2 /2005**

**Pathology Exam**  
**Mid yeat-Reast**

**\* 1-Define the following:**

- |                    |                |                |
|--------------------|----------------|----------------|
| a-Irritant.        | b- Suppuration | c-Pathogenesis |
| d-Resolution       | e-Oncogene     | f-Septicaemia  |
| g-Nut-meg liver    | h-Hamartoma    | i-Aneurysm     |
| j-Bronchiectasis . |                |                |

**(10 Marks)**

**\*2-Describe the microscopic picture of membranous inflammation.**

**(5 Marks)**

**\*3-Give an account of the process of repair of peripheral nerve.**

**(5 Marks)**

**\*4-Mention causes and effects of metastatic calcification.**

**(5 Marks)**

**\*5-Give an account of the causes & gross morphology of intestinal infarction.**

**(5 Marks)**

**\*6-Discuss effects of pott's disease.**

**(5 Marks)**

**\*7-Give an account of bilharziasis of spleen.**

**(5 Marks)**

**\*8-Enumerate tumour markers.**

**(5 Marks)**

**\*9-Describe the gross appearance of heart from a case of Rt sided heart failure due to Rheumatic mitral stenosis.**

**(5 Marks)**

**\*10-Enumerate complications of lung abcess.**

**(5 Marks).**

**GOOD LUCK**

Mansoura University  
Faculty of Medicine

Time allowed :3 hours  
Date :6 /6/ 2005

**(Pathology Ex.) last year**

- 1-Give an account of vascular changes in acute inflammation.  
(10 Marks)
- 2-Classify cells according to their power of regeneration with examples.  
What will happen if the stroma is destroyed.  
(8 Marks)
- 3-Mention the possible causes of oedema in one lower limb.  
(7 Marks)
- 4-How can oncogenes stimulate cell growth.  
(10 Marks)
- 5-List the ulcers of small intestine and describe their gross morphology.  
(12 Marks)
- 6-List the causes of small contracted kidney. Mention their gross morphology.  
(10 Marks)
- 7-Define pneumonia . Enumerate its types . List the differences between lobar pneumonia & bronchopneumonia .  
(10 Marks)
- 8-Give an account of classification & staging of Hodgkin's lymphoma.  
(8 Marks)
- 9-Enumerate the causes of bleeding per nipple . Describe the gross & microscopic picture of one of them  
(10 Marks)
- 10-Enumerate aetiological & morphological types of cirrhosis.  
(8 Marks)
- 11-Give an account of causes & types of peripheral neuropathy.  
(10 Marks)
- 12-What is the commonest malignant tumour arising in diaphysis of long bone of a child.  
Describe its N/E & microscopic picture.  
(7 Marks)
- 13-A patient with history of chancre 10 years ago. Now presented by a localized dilatation in the arch of the aorta.  
Answer the following:
  - a)What is the name of aortic lesion.
  - b-What is its pathogenesis.
  - c)What are its complications.

(10 Marks)

GOOD LUCK

Mid year Exam Pathology

1- Define the following.

- |                            |               |                |
|----------------------------|---------------|----------------|
| a-Prognosis                | b-Chemotaxis. | C-Sago spleen  |
| d-Granulation tissue.      |               | E-Regeneration |
| f-Membranous inflammation. |               | G-Carbuncle.   |
| h-Tumour markers.          |               | I-Apoptosis.   |
| J-Sarcoma.                 |               |                |

(10 Marks).

2-Enumerate:

- a-Epithelial changes in bilharziasis of urinary bladder.
- b-Causes of thrombosis.
- c-Complications of chronic fibrocaceous pulmonary tuberculosis.
- d-Tumour suppressor genes (antioncogenes).
- e-Causes of reactive (secondary) amyloidosis.

(5 Marks Each)

3- Define an ulcer , enumerate its aetiological types in skin & describe the gross characters of each.

(10 Marks).

4- What is vegetation, list its types and characters of each.

(10 Marks)

GOOD LUCK.

Pathology Exam (Third Year).

All questions are to be attempted:

- 1-List differences between osteosarcoma & osteoclastoma .(Sites, microscopic & Macroscopic) (15 M)
- 2-Enumerate five types of breast lump in female, describe microscopic picture of one mass . (10 M)
- 3-Describe the microscopic picture of urinary bladder bilharziasis (10 M)
- 4-Enumerate five complications of :
  - a- Myocardial infarction.
  - b-Diabetes mellitus. (10 M)
- 5-List features of cellular atypia in malignancy. (5 M)
- 6-List stages of lobar pneumonia & describe in details macroscopic & microscopic picture of one stage . (15 M)
- 7-Define haematemesis, enumerate its causes & describe macroscopic picture of one lesion. (10 M)
- 8-Define cirrhosis, enumerate its complications & describe microscopic picture of one type. (10 M)
- 9-Enumerate predisposing factors of:
  - a-Endometrial carcinoma .
  - b-Carcinoma of uterine cervix. (10 M)
- 10-Give an account of T.B lymphadenitis (10 M)
- 11-List differences between:  
Chronic myelocytic & chronic lymphocytic leukaemia . (10 M)
- 12-Describe naked eye picture of metastatic brain tumours. (5 M )

GOOD LUCK



Mansoura University

Date: 2-6-2004.

Faculty of Medicine

Time Allowed: 3 hs.

**Pathology Exam (THIRD YEAR.)**

Give an account of; (10 Ms each)

- 1) Pathological types of salivary gland tumours.
- 2) Types and complications of renal calculi.
- 3) Methods of spread and causes of death in malignant tumours.
- 4) Types of malignant bone tumours, and describe the pathology of osteosarcoma.
- 5) Differences between chronic myelocytic and chronic lymphatic leukaemia.
- 6) Types and complications of intracranial haemorrhage.
- 7) Causes and complications of bacterial bronchopneumonia.
- 8) Possible causes of enlarged cervical lymph nodes, describe the pathology of one of them in details.
- 9) Hepatocellular carcinoma in details.
- 10) Lesions with giant cells, describe the pathology of one lesion in details.
- 11) Describe the pathology of carcinoma with early hematogenous spread.
- 12) Pathology and complications of diabetes mellitus.

Good Luck.

21  
Mansoura University  
Faculty of Medicine

Time allowed :one hour  
Date :22 / 1 /2004

**Mid year pathology Exam.**

**All questions are to be attempted:-**

**1-Describe the microscopic picture of :-**

a-Liver in bilharziasis.

b-Miliary tuberculosis. **10 M.**

**2-Define & mention general features, types, microscopic picture and fate of infarction.**

**10 M.**

**3-Define and mention differences between hyperplasia, metaplasia and dysplasia.**

**10 M.**

**4-Define and mention pathogenesis, course and gross picture of abscess.**

**10 M.**

**5- Enumerate complications of :-**

a-Rheumatic fever.

b-Varicose veins

c-Arterial aneurysm.

**15 M.**

**GOOD LUCK**



Third Year Final Exam.

PATHOLOGY

- 1- Give an account of the classification<sup>3</sup> of tumours of urinary bladder and describe, macro<sup>5</sup>scopic, micro<sup>7</sup>scopic and methods<sup>5</sup> of spread of carcinoma of urinary bladder. ( 20 Marks )
- 2- Enumerate the factors which control the process of repair of skin wounds and the possible complications<sup>5</sup>. ( 10 Marks )
- 3- Define liver cirrhosis<sup>1</sup>, how you classify<sup>3</sup> it? give a note on the post viral<sup>6</sup> cirrhosis. (10 Marks )
- 4- Give an account of subacute bacterial endocarditis ( causes<sup>1</sup>, macro<sup>4</sup>scopic and complications<sup>5</sup> ) ( 10 Marks )
- 5- Give an account of benign prostatic hyperplasia ( definition<sup>1</sup>, pathogenesis<sup>2</sup>, gross<sup>2</sup>, micro<sup>3</sup>scopic picture and effects<sup>4</sup>). 9 ( 12 Marks )
- 6- Give short account of types and effects of cerebral haemorrhage. ( 8 Marks )
- 7- Enumerate<sup>3</sup> non neoplastic ulcers of large intestine. describe the morphology<sup>8</sup> and enumerate the complications<sup>4</sup> of one them. ( 15 Marks )
- 8- Give an account of aetiology<sup>3</sup>, pathogenesis<sup>3</sup> and fate<sup>4</sup> of bronchiectasis. ( 10 Marks )
- 9- Give short note on pathological features of acute haematogenous osteomyelitis. ( 10 Marks )
- 10- Describe each of the following
  - Macro<sup>5</sup>scopic picture of lipoma.
  - Epithelial changes<sup>5</sup> in bilharziasis of urinary bladder.
  - Macroscopic<sup>5</sup> picture of vesicular mole. ( 15 Marks ).

GOOD LUC K

*Mansoura University  
Faculty of Medicine  
Pathology Department  
Final 3<sup>rd</sup> years exam*

**Paper I - General pathology**

**Date: 30-8-2009**

**Time allowed: 2 hours**

**Answer all the following questions**

**I- Clinical cases:-** ( 20 marks 5 for each case)

**Case 1:**

Male patient aged 55 year, His laboratory investigations revealed hyperlipidemia. Angiography study revealed fusiform dilatation of the descending abdominal Aorta.

- a- Possible diagnosis of the case is
- b- Give the M/E of the aortic lesion.

c-Enumerate the possible complications of the/aortic lesion \

- 1-
- 2-
- 3-

**Case 2:**

A 54 year old male patient with history of intestinal bilharziasis ,and hepatosplenomegaly suffered an attack of vomiting of blood...

- 1- Vomiting of blood is called.....
- In this patient vomiting of blood is due to.....

2- Microscopic appearance of the liver in this patient

.....

.....

.....

.....

3- Other complications of intestinal bilharziasis include

- a.....
- b.....
- c.....

**Case 3:-**

A 18 year old girl suddenly developed acute abdominal pain, fever and vomiting. Medical examination revealed tender Mc/Berney's point and laboratory investigation showed leukocytosis. The case was diagnosed as acute appendicitis and surgical removal of the appendix was done.

1- The M/E of the removed appendix is

2- Cause of fever and leukocytosis in this patient is.....

3- Other types of acute suppurative inflammation include

- a.....
- b.....
- c.....

**Case 4 :-**

- A 60 years old male patient with a long history of smoking of two packs per day presents with chronic cough and expectoration for 3 consecutive months over the past 2 consecutive years.

a - The most probable diagnosis of this case is.

c- M/E of the airways of this patient will reveal

d- Other harmful effects of smoking on the respiratory tract include

- 1- .....
- 2- .....

**II- Define: (10 Marks one mark each)**

1- Pathogenesis

.....

.....

2- Atrophy

.....

.....

3- Emphysema

.....

.....

4- Myocardial infarction

.....

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5- Cellulitis

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6. Healing by organization

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7- Chancre

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.....

8- Pyemia

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.....

9- Thrombus

.....

.....

10- Aschof's nodule

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.....

**III- Enumerate: (10 Marks. 2 marks each)**

1- Chemical carcinogens

- a.....
- b.....
- c.....
- d.....

2- Types of cerebral aneurysms

- a.....
- b.....
- c.....
- d.....

3- Complications of myocardial infarction

- a.....
- b.....
- c.....
- d.....

4- Types of emboli

- a.....
- b.....
- c.....
- d.....

5- 4 Different histological types of bronchogenic carcinoma

- a.....
- b.....
- c.....
- d.....

**IV- Write the microscopic appearance ( M/E) in each of the followings  
(10 Marks. 2 marks each)**

1- Lobar pneumonia (stage of red hepatization)

2 – Malignant tumor of glandular epithelium.

3- Amyloid liver

4 - Bilharzial changes in the epithelium of the urinary bladder

5- Bacterial granuloma in the lung

**V- Give an account on(10 Marks. 2 marks each)**

1● Genes that control the process of malignant transformation

2●Lung collapse

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.....

.....

.....

3● Pre-malignant lesions

.....

.....

.....

.....

.....

4●Vascular changes in benign hypertension

5● Complications of wound healing

.....



**VI-Write the scientific name of the following (10 marks, one mark each)**

		<b><u>Scientific name</u></b>
<b><u>1</u></b>	Increased size of an organ due to increase number of its component cells	
<b><u>2</u></b>	Extracellular deposition of an abnormal fibrillary protein	
<b><u>3</u></b>	Circulation of a large number of virulent micro-organism and its toxins in the blood	
<b><u>4</u></b>	Dilatation of medium sized bronchi and bronchiole associated with chronic suppurative inflammation	
<b><u>5</u></b>	Necrosis associated with putrifaction	
<b><u>6</u></b>	Directional movement of leukocytes towards an irritant	
<b><u>7</u></b>	Intra –epithelial malignant transformation of cells without invasion of the basement membrane	
<b><u>8</u></b>	Multi-system autoimmune disease affecting the heart following streptococcal infection	
<b><u>9</u></b>	Thrombi over cardiac cusps	
<b><u>10</u></b>	A mass formed of normal tissues of the locality with abnormal quantity or arrangement.	

**VII- Compare : (5 Marks. 2.5 marks each)**

1- Lobar pneumonia and bronchopneumonia

	Lobar pneumonia	Bronchopneumonia

2- Acute and subacute bacterial endocarditis

	Acute bacterial endocarditis	Subacute bacterial endocarditis

**GOOD LUCK**



**MANSOURA UNIVERSITY**  
**FACULTY OF MEDICINE**  
**DEPARTMENT OF PATHOLOGY**

Final Examination for 3<sup>rd</sup> Year Medical Student  
**Paper II**  
Special Pathology  
31/8/2009

1. This examination paper consists of (10) pages including the cover.
2. Time allowed is 2 hours.

Clinical Cases (4x5=20  
marks)

Define (10x1=10 marks)

Enumerate (2x5=10  
Marks)

Short account  
(2x5=10 marks)

Microscopic  
2x5=10 marks

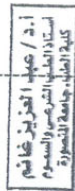
Gross  
5x2=10 marks

Compare  
2.5x2=5 marks

Total  
75 marks

**TOTAL MARK**

**CODE NUMBER**



**CODE NUMBER**

STUDENT'S FULL NAME :-----  
STUDENT'S ROLL NUMBER -----

2008 / 2009

*Mansoura University*  
*Faculty of Medicine*  
*Pathology Department*  
*Final 3<sup>rd</sup> years exam*  
*Paper II – Special pathology*

*Date 31-8-2009*

*Time allowed: 2 hours*

Answer all the following questions

I- Clinical cases:- ( 20 marks 5 for each case)

**Case I**

A 4 years old child was brought by his mother complaining of severe headache, vomiting, fever and neck rigidity. CT shows no mass lesion in the brain and the case was diagnosed as suppurative meningitis

1. Causative organism is.....
2. Routes of infection are,.....

3. CSF examination would reveal.....

.....  
.....  
.....

4. Untreated cases would be complicated by.....

**Case II**

Three weeks after giving her first child, a 24 years old woman –breast feeding her baby- noticed redness of the left nipple with a localized tender mass discharging pus through a skin fissure

1. The most probable diagnosis of the case is
2. The causative organism is mostly.....

Other causes of breast mass include

- a.....
- b.....
- c.....

#### **Case III**

A 17 years old boy presents with pain and swelling around his left knee for the past month. Radiograph demonstrates periosteal elevation with sun-ray appearance of the lower end of the left femur...

- a. The most probable diagnosis of the case...
- c. M/E of the tumor will reveal .....
- d. Mode of distant spread of this tumor is mainly by/

#### **Case IV**

A 70 year old patients with reflux esophagitis recently developed dysphagia and 9-kg weight loss over the past few months. Endoscopy reveals irregular narrowing of the lower esophagus by a fungating mass

- 1. The most probable diagnosis of the case is
- 2. The expected M/E of the lesion is
- 3. This lesion most probably develops on top of
- 4. Other causes of esophageal obstruction include.

**II- Define : (10 Marks, one each)**

1- Dysentery

2- Portal hypertension

3- Hydronephrosis

4- Adenomyosis

5- Hodgkin's lymphoma

6- Osteomalacia

7- Peripheral neuritis

8- Seminoma

9- Volvulus

10- Fibroadenoma

\*\*\*\*\*

**III- Enumerate ( 10 marks, 2 marks each)**

**1- Complications of peptic ulcer**

- a. ....
- b. ....
- c. ....
- d. ....

**2- Ovarian surface epithelial tumors**

- a. ....
- b. ....
- c. ....
- d. ....

**3- Types of urinary stones**

- a. ....
- b. ....
- c. ....
- d. ....

**4- Causes of thyroid gland enlargement**

- a. ....
- b. ....
- c. ....
- d. ....

**5- Causes of splenic enlargement**

- a. ....
- b. ....
- c. ....
- d. ....

**IV- Write a short account on each of the following: (10 marks, 2 marks each)**

**1- Testicular tumors**

- .....
- .....
- .....
- .....
- .....



- Intestinal polyps

.....  
.....  
.....  
.....

- Minimal change glomerulonephritis

.....  
.....  
.....  
.....

- Gravis disease

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.....  
.....  
.....

Causes of biliary obstruction

.....  
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.....

Write the microscopic appearance (M/E) of each of the following:

Invasive duct carcinoma of the breast

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.....  
.....  
.....

Chronic peptic ulcer

.....  
.....

.....  
.....  
.....

3- Giant cell tumor of bone

.....  
.....  
.....  
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4- Choriocarcinoma

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.....  
.....

5- Wilm's tumor

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**VI- Write the gross picture of each of the following: (10 marks.2 marks each)**

1- Hydatidiform mole

2- Osteosarcoma

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3- Giant cell tumor of bone

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.....  
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4- Choriocarcinoma

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5- Wilm's tumor

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**VI- Write the gross picture of each of the following: (10 marks.2 marks each)**

1- Hydatidiform mole

2- Osteosarcoma

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### 3- Hydronephrosis

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### 4- Liver cirrhosis

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### 5- Benign/cystic teratoma

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.....



**VII- Compare ( 5 marks, 2.5 each)**  
**1- Crohn's disease and ulcerative colitis**

Site		
Age	/	/
HLA		
ET		
Path	/	/
Macro		
Micro		
Comp	/	/
Extra		/

**2- Toxic and ischemic acute tubular necrosis**

	<b>Toxic</b>	<b>Ischemic</b>
Site	/	/
Age	/	/
HLA	/	/
ET	/	/
Path	/	/
Macro	/	/
Micro	/	/
Comp	/	/
Extra	/	/

GOOD Luck

**Mansoura University**

**THIRD YEAR MEDICAL STUDENTS  
Midyear pathology exam**

**Time allowed: One hour**

**Date: 26/1/2009**

**PLEASE...Read the questions carefully before answering them**

**I- MCQ questions (one mark each)**

**Please, encircle the best ONE answer**

**1-Which of the following statements is true for neutrophils**

- a. They are the first cells to emigrate in acute inflammation
- b. They are the most predominant cell in chronic inflammation.
- c. They play an important role in immunity against tuberculosis
- d. They fuse to form giant cells
- e. They usually increase during viral infections

**2- Which of the following is true about post-operative thrombosis**

- a. It may result from stasis and venous compression due to recumbency
- b. It affects arteries more commonly than veins
- c. It results from massive increase of leucocytic count
- d. All of the above
- e. None of the above

**3 -Which of the following statements is not true for amyloidosis**

- a. It is made up predominantly of fibrillary protein
- b. It is deposited in the walls of blood vessels
- c. Sudan III and osmic acid can stain amyloid specifically
- d. It can lead to nephrotic syndrome
- e. It rarely leads to liver cell failure

**4- Fatty change with tigroid appearance of the myocardium is characteristic of**

- a. Alcoholic cardiac injury
- b. Diabetes mellitus
- c. Chronic anemia
- d. Hyperthyroidism
- e. Obesity

**5-The lungs of patients with mitral stenosis contain numerous hemosiderin-laden cells within the alveoli. These cells are called**

- a. Endothelial cells
- b. Pneumocytes
- c. Heart failure cells
- d. T- lymphocytes
- e. Eosinophils

**6- Which one of the following represents active hyperemia**

- a. A 21 years old medical student who develops a red hot face after being asked a question during the lecture
- b. A 69 years old male patient who died due to right sided heart failure and had a nutmeg liver
- c. A patient with mitral stenosis whose lungs show brown induration
- d. A 6 years old boy who develops severe pain due to testicular torsion
- e. A 71 years old female patient who developed hemorrhage due to vitamin C deficiency

**7- The best definition for hamartoma is**

- a. Benign or malignant tumor with all three germ layers
- b. Benign collection of cells in an ectopic site
- c. Tumor with mixed epithelial and mesenchymal tissues
- d. Abnormal arrangement or quantity of tissues of the locality forming a mass
- e. Dysplastic organ or tissue

**8-Biopsy specimen from an excised bladder tumor reveals grade IV transitional cell carcinoma this means that....**

- a. The neoplasm is metastatic.
- b. The patient has a poorly differentiated neoplasm.
- c. It is a paraneoplastic syndrome.
- d. The stage of the tumor is low.
- e. The patient is cured of the cancer

**9- When T.B affects the male genital tract it usually first appears in**

- a. Epididymis
- b. Seminal vesicles
- c. Testis
- d. Spermatic cord
- e. Urethra



**10- Which of the following is true about pseudomembranous inflammation**

- a. A severe type of suppurative inflammation affecting mucous membranes
- b. Accompanied by excess mucous secretion
- c. Characterized by an exudates rich in lymphocytes
- d. All of the above
- e. None of the above

**11- If the following events are put in their correct order in healing by primary intension which would come forth**

- a. Blood clot formation
- b. growth of granulation tissue
- c. Epidermal regeneration
- d. Macrophages clean the area
- e. Deposition of collagen and remodeling

**12- Which of the following is true for pyemic abscess**

- a. Single abscess centrally located within the affected organ
- b. May develop in cases of acute infective endocarditis
- c. Most patients recover completely within days
- d. All of the above
- e. None of the above

**13- Which of the following factors participates in the formation of inflammatory fluid exudates**

- a. Increased intravascular osmotic pressure
- b. Increased vascular permeability.
- c. Vasoconstriction
- d. Decreased osmotic pressure of the interstitial tissue
- e. All of the above

**14- Primary pulmonary tuberculosis is associated with all of the following except**

- a. Hilar lymph node caseous necrosis
- b. Lymphangitis
- c. Subpleural caseating granulomas
- d. Pulmonary apical cavity
- e. Childhood affection

**15- Which of the following is true about angiogenesis**

- a. It is an important feature of granulation tissue
- b. It occurs in tumors in response to angiogenesis factors
- c. It does not occur in tuberculosis and this helps in the process of caseation
- d. All of the above
- e. None of the above

**16- A proto-oncogene is best defined as**

- a. An oncogene inserted by a virus
- b. A dormant gene that has been altered by a virus
- c. Normal gene that controls cell growth and proliferation
- d. Viral oncogene
- e. Gene that suppresses cellular proliferation

**17- Paraneoplastic syndromes include all of the following except**

- a. Neuropathies
- b. ACTH production by medullary carcinoma of the thyroid
- c. Bone destruction by metastatic tumors
- d. Parathormone production by squamous cell carcinoma
- e. Acanthosis nigricans (skin rash)

**18- Which of the following statements regarding the TNM system for tumor staging is NOT true**

- a. "T" is scored according to tumor size
- b. "N" is scored for lymph node involvement
- c. "M" is scored according to presence of metastases
- d. Staging helps to determine the histological type of the tumor
- e. Staging helps to determine the prognosis of the tumor

**19- Histologic features of malignant tumors include**

- a. Uniform nuclear size and shape
- b. Pleomorphic nuclear size and shape
- c. No potential for metastasis
- d. Circumscription from the surrounding tissue
- e. Few or no mitotic figures

**20- Broder's classification of tumors classify them according to**

- a. Their origin
- b. Their degree of differentiation
- c. The degree of stromal response
- d. The degree of lymphocytic infiltration

e. The presence of distant metastases

**II- For each item of the left column, match the most suitable association from the right column:-**

**Regarding Bilharziasis**

- |  |  |
|--|--|
|  | A- a type of carcinoma of urinary bladder in Egypt |
| 21. Bilharzial hepatic fibrosis                | B- Complicated by hepatoma                         |
| 22. Bilharzial polyps                          | C- More common in intestinal bilharziasis          |
| 23. Squamous cell carcinoma of urinary bladder | D- Due to dense ova deposition                     |
|  | E- Complicated by hematemesis                      |

**Regarding genes and cancer**

- |              |  |
|--------------|--|
|              | A- DNA repair gene                       |
| 24. Bcl-2    | B. Xeroderma pigmentosa                  |
| 25. P53      | C- Guardian of the genome                |
| 26. Rb. Gene | D- Anti-apoptotic gene                   |
|              | E- Cell cycle arrest at G1/S check point |

**Regarding mediators of acute inflammation**

- |                   |   |
|-------------------|---|
|                   | A- a pyrogen that affects the hypothalamus        |
| 27. Leukotrienes  | B- increases the vascular permeability            |
| 28. Interleukin-1 | C- a chemical mediator of chemotaxis              |
| 29. Histamine     | D- causes transient vasoconstriction              |
|                   | E- an exotoxin which prevents neutrophil movement |

**Regarding circulatory disturbances**

- |                     |   |
|---------------------|---|
|                     | A- Severe trauma with bone fracture         |
| 30. Lines of Zhan   | B- Is an example of pale infarction         |
| 31. Fat embolism    | C- Formed mainly of platelets and fibrin    |
| 32. Lung infarction | D- Occurs in post mortem clot               |
|                     | E- Medium sized embolus in a congested lung |

**Regarding types of necrosis**

- |                        |  |
|------------------------|--|
|                        | A- Arteriolar wall in malignant hypertension |
| 33. Caseous necrosis   | B- May be traumatic or enzymatic             |
| 34. Fat necrosis       | C- Caused by sudden ischemia                 |
| 35. Fibrinoid necrosis | D- Brain infarction                          |
|                        | E- Found predominantly in tuberculosis       |

### III- Clinical cases

36- During a routine autopsy study of a 55years old dead body, the heart ventricles contain soft jelly-like mass not attached to the cardiac walls. The mass has a red lower part with a yellow upper part

This mass is called

- a. Thrombus
- b. Embolus
- c. Red infarction
- d. Post mortem clot
- e. Fat necrosis

37- A 16 year old boy presents with a 24 hour history of severe abdominal pain, nausea, vomiting and low grade fever. The leukocyte count is 16.000/mm<sup>3</sup> with predominant neutrophils. The case was diagnosed as acute appendicitis and surgery was done. The removed appendix is expected to show

- a. Heavy calcium deposition
- b. Granulation tissue
- c. Granulomatous inflammation
- d. Dense lymphocytic and plasma cell infiltration
- e. Wide areas of edema, congestion, purulent reaction with localized areas of abscess formation.

38- A 60 year old woman with advanced breast cancer ad widespread bony metastases is found to have calcification of multiple organs. The calcifications are best described as

- a. Dystrophic with decreased serum calcium
- b. Dystrophic with increased serum calcium
- c. Metastatic with decreased serum calcium
- d. Metastatic with increased serum calcium
- e. None of the above.

39- A 43 year old man presents with fever, hemoptysis, weight loss and night sweats. A chest radiograph reveals apical lesions with cavitation of the right lung. Sputum cultures reveal numerous acid fast organisms. Which of the following disorders does this patient most likely have

- a. Primary intestinal tuberculosis
- b. Miliary tuberculosis with seeding to multiple organs
- c. Ghon's focus of primary pulmonary complex

- d. Acquired immunodeficiency syndrome
- e. Secondary tuberculosis resulting from activation of a prior primary

40- A 56 year old female patient presents with hematemesis and sudden weight loss. A malignant gastric mass was diagnosed, then the patient developed hemorrhagic ascitis and bilateral krukemberg tumor of her ovaries.

The method of spread in this case is through

- a. Lymphatic spread
- b. Hematogenous spread
- c. Direct inoculation
- d. Transcoelomic spread
- e. Through natural passages

#### **IV- Define if the following statements are true or false( T or F):**

**one mark each**

41- Bactremia means the circulation of virulent bacteria and their toxins in blood

42-High incidence of colonic cancer is related to low dietary fibers.

43-Chondyloma accuminatum occurs in secondary stage of syphilis

44- Hyperplasia means increase in the size of individual cells of an organ

45-Sarcomas usually spread by lymphatics

46- Aflatoxin B1 is related to hepatocellular carcinoma

47-In cell death by apoptosis a surrounding inflammatory response is usual

48-Most pulmonary emboli originate from leg veins

49-A clean surgical wound usually heals by primary intension

50-Serofibrinous inflammation occurs in lobar pneumonia .

*Good Luck*



- d. Acquired immunodeficiency syndrome
- e. Secondary tuberculosis resulting from activation of a prior primary

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- d. Transcoelomic spread
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- 42-High incidence of colonic cancer is related to low dietary fibers.
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- 47-In cell death by apoptosis a surrounding inflammatory response is usual
- 48-Most pulmonary emboli originate from leg veins
- 49-A clean surgical wound usually heals by primary intension
- 50-Serofibrinous inflammation occurs in lobar pneumonia .

*Good Luck*

✓

*Mansoura University  
Faculty of Medicine*

*Pathology Departement  
Final 3<sup>rd</sup> years exam*

***Paper II – Special pathology***

***Date: 12-8-2008***

***Time allowed: 2 hours***

**Answer all the following questions**

**I- Clinical cases:-** ( 15 marks 5 for each case)

**Case I**

*A 51 years old male patient presents with epigastric pain. Gastroscopy revealed a clean, solitary gastric ulcer with punched out wall and radiating rugae around it*

a. The most probable diagnosis of the case is.....

b. Pathogenesis of the ulcer is .....

.....

.....

.....

.....

c. Possible complications of the case include

- 1-.....
- 2-.....
- 3-.....
- 4-.....

**Case II**

*A 55 years old male patient presents with liver failure and on examination he had a cirrhotic liver and ascitis. He gave a history of blood transfusion several years ago*

a. The most probable diagnosis of the case.....

b. Describe the gross and microscopic picture of the liver in this patient

Gross

.....

.....



.....  
.....  
M/E .....

c. Enumerate the manifestations of liver cell failure

- 1- .....
- 2- .....
- 3- .....
- 4- .....

**Case III**

*A 15 years old boy presents with hematuria, hypertension, oliguria and mild proteinuria. He gave a history of acute tonsillitis 2 weeks ago.*

a. The most probable diagnosis of the case is.....

b. The pathogenesis of the disease is.....  
.....  
.....

c. M/E of the mass may show.....  
.....  
.....  
.....

d. Prognosis of the case  
.....  
.....  
.....  
.....

**II- Define : (10 Marks, one each)**

7



1- Angina pectoris

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.....

2- Emphysema

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3- Dysfunctional uterine bleeding

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4- Congenital megacolon

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5- Hodgkin's lymphoma

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6- Nephrotic syndrome

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.....

7- Endometriosis

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8- Osteomalacia

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.....

9- Peripheral neuritis

10- Cirrhosis

**III- Enumerate ( 10 marks, 2 marks each)**

**1- 4 Ovarian surface epithelial tumors**

- a. ....
- b. ....
- c. ....
- d. ....

**2- Stages of lobar pneumonia**

- a. ....
- b. ....
- c. ....
- d. ....

**3- Complications of myocardial infarction**

- a. ....
- b. ....
- c. ....
- d. ....

**4- Causes of lymphadenopathy**

- a. ....
- b. ....
- c. ....
- d. ....

**5- Types of gall stones**

- a. ....
- b. ....
- c. ....
- d. ....

**IV- Write a short account on each of the following: (10 marks, 2 marks each)**

1- Carcinoid syndrome

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2- Choriocarcinoma

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3- Benign prostatic hyperplasia

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4- Polyps of the large intestine

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5- Aortic aneurysms

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**IV- Write a short account on each of the following: (10 marks, 2 marks each)**

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4- Polyps of the large intestine

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5- Aortic aneurysms

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✓  
**V-Write the microscopic appearance( M/E) of each of the following:**

1- Renal cell carcinoma

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2- Bronchiectasis

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3- Fibroadenoma of the breast

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4- Osteosarcoma

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5- Pleomorphic adenoma of the parotid gland

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✓  
VI- Write the gross picture of each of the following: (10 marks 2 marks each)

1- Meningioma

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.....  
.....  
.....

2- Breast carcinoma

.....  
.....  
.....  
.....  
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3- Crohn's disease

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4- Hydatidiform mole

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5- Hydronephrosis

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.....



VII- Compare - list only 5 differences between ( 10 marks, 2.5 each)

1- Benign and malignant hypertension

	Benign hypertension	malignant hypertension

2- Pyemic and inhalation lung abscess

	Pyemic lung abscess	Inhalation lung abscess

### 3 Acute and chronic pyelonephritis

10

	Acute pyelonephritis	Chronic pyelonephritis
Pathogenesis		
Clinical picture		
Diagnosis		
Therapy		
Prognosis		

### 4 Cervical and endometrial carcinoma

	Cervical carcinoma	Endometrial carcinoma
Pathogenesis		
Clinical picture		
Diagnosis		
Therapy		
Prognosis		

GOOD LUCK



### 3 Acute and chronic pyelonephritis

10

	Acute pyelonephritis	Chronic pyelonephritis
Pathogenesis		
Clinical picture		
Diagnosis		
Therapy		
Prognosis		
Prevention		

### 4 Cervical and endometrial carcinoma

	Cervical carcinoma	Endometrial carcinoma
Pathogenesis		
Clinical picture		
Diagnosis		
Therapy		
Prognosis		
Prevention		

GOOD LUCK



## Clinical Pharmacology

### Paper I

#### Answer the following questions

- 1) Classify drugs which could be used in treatment of angina pectoris with respect to the mechanism of action of each group, therapeutic uses, adverse effects and precautions for use of nitrates. (15 Marks)
- 2) Mention types, uses, adverse effects and contraindications of fibrinolytic drugs. (15 Marks)
- 3) Write short notes on: (15 Marks)
  - a. Inhibitors of eicosanoid synthesis and therapeutic uses of prostaglandin.
  - b. Pharmacogenetics.
  - c. Mechanism of intoxication, signs, symptoms and main lines of treatment of organophosphorus.
- 4) Mention the main differences between: (15 Marks)
  - a. Enzyme induction and enzyme inhibition.
  - b. First order and zero order elimination.
  - c. Neostigmine and physostigmine.
  - d.  $\alpha_1$  and  $\alpha_2$  adrenergic receptor stimulation.
  - e. Frusemide and hydrochlorothiazide.
- 5) Mention the mechanism of action, therapeutic uses and side effects of the following: (15 Marks)
  - a. Cholchicine
  - b. Domperidone.
  - c. Potassium sparing diuretics.

#### Let us hope that ALLAH will help you

- ١) للطالب كراسة إجابة واحدة فقط ولا يحق للطالب طلب كراسة أخرى مهما كانت الأسباب.
  - ٢) يكتب رقم السؤال في وسط السطر ويفضل أن يكون في أول الصفحة قبل بدء الإجابة.
  - ٣) الإجابة باللون الأزرق فقط.
  - ٤) ممنوع الإجابة من الجهة اليمنى إلى الجهة اليسرى من كراسة الإجابة.
  - ٥) ممنوع وضع أى علامات أو عبارات باللغة العربية في الكراسة ، في حالة المخالفة سيتم اتخاذ الإجراءات القانونية اللازمة.
- امتحانات الشفوى تبدأ من الساعة الثامنة صباحاً بالقسم
- ممنوع منعاً باتاً تغيير ميعاد الشفوى وكذلك لجان الشفوى وتوزيعها كالتالى
- |                                    |                                     |
|------------------------------------|-------------------------------------|
| الخميس: ٥/١٤ من رقم ٥٠٠١ إلى ٥٢١٠  | الجمعة: ٥/١٥ من رقم ٥٢١١ إلى ٥٤٢١   |
| السيبت: ٥/١٦ من رقم ٥٤٢٢ إلى ٥٦٣١  | الأحد: ٥/١٧ من رقم ٥٦٣٢ إلى ٥٨٤١    |
| الاثنين: ٥/١٨ من رقم ٥٨٤٢ إلى ٦٠٥١ | الثلاثاء: ٥/١٩ من رقم ٦٠٥٢ إلى ٦٢٦١ |

Clinical Pharmacology

Paper II

Answer the following questions

- 1) Discuss xanthines from stand point of classification, pharmacokinetics, mechanism of action, pharmacological effects, therapeutic uses, adverse effects and precautions  
(15 Marks)
- 2) Classify oral antidiabetic drugs and mention the mechanism of action and common side effects of each group.  
(15 Marks)
- 3) Mention the mechanism of action of the followings:  
(15 Marks)
  - a. Thiouracil drugs.
  - b. Chloroquine.
  - c. Tricyclic antidepressant.
  - d. Isoniazide.
  - e. Benzodiazepines.
- 4) Mention the most common untoward effects of:  
(15 Marks)
  - a. Penicillins.
  - b. Morphine.
  - c. Oestrogen.
  - d. Dapsone.
  - e. Ketoconazole.
- 5) Mention drug - drug interactions / drug food interactions (if possible) with:  
(15 Marks)
  - a. M.A.O.I.s.
  - b. Phenothiazines.
  - c. L. Dopa.
  - d. Vit.D.
  - e. Streptomycin.

Let us hope that ALLAH will help you

1) لطالب كراسة إجابة واحدة فقط ولا يحق للطالب طلب كراسة أخرى مهما كانت الأسباب.

2) يكتب رقم السؤال في وسط السطر ويفضل أن يكون في أول الصفحة قبل بدء الإجابة.

3) إجابة السؤال الأخرى فقط.

4) يجب أن تكون الإجابة التي تبدأ بالعبارة "بسم الله الرحمن الرحيم" هي الإجابة الوحيدة.

5) يجب أن تكون الإجابة التي تبدأ بالعبارة "بسم الله الرحمن الرحيم" هي الإجابة الوحيدة.

**Clinical Pharmacology**

**I: Case (1) Insulin dependent diabetes mellitus (IDDM).**

Refer to the case and complete the following statements:

- 1) Laboratory investigations needed for this case are ..... and .....
- 2) The two main differences between IDDM. And NIDDM are ..... and .....
- 3) Total calories needed for this patient are divided over food elements as the following percentage.....
- 4) The essential antidiabetic drug giving to this patient is .....
- 5) The route of administration of the selected drug in No. 4 is : .....
- 6) How can you calculate the dose of insulin per day?
- 7) If this patient was allergic to traditional insulin, what is the other type which becomes less antigenic needed for this patient?
- 8) The other routes of administration of insulin are ..... and .....
- 9) The most dangerous side effect of insulin overdose is .....
- 10) The serum electrolyte which is affected by prolonged injection of insulin is .....

**II: Case (2) Hypertension.**

Refer to the case above to answer the following questions:

- 1) What are the non-pharmacological advises of this patient?
- 2) Name the commonly used four antihypertensive groups for treatment of this patient?
- 3) Name two antihypertensive drugs produce first dose hypotension especially in sodium depleted patient?
- 4) What are the antihypertensive drugs, which affect serum K level differently?
- 5) Select two drugs from different antihypertensive groups, which has negative inotropic effect?
- 6) If this patient is diabetic, what are the antihypertensive drugs that contraindicated?
- 7) Mention two arteriolar vasodilators which can be used for treatment of hypertension?
- 8) What are the two safe drugs used in the treatment of hypertension with renal insufficiency?
- 9) What are the two antihypertensive drugs contraindicated in pregnancy and why?
- 10) What is the antihypertensive group which is contraindicated in peripheral vascular disease? Why?



### III Case (3) Acute diarrhea

Refer to the case above to complete the following statements

- 1) The definition of acute diarrhea is .....
- 2) The most important treatment of acute severe diarrhea is .....
- 3) Lomotil is combination of .....and ..... Given to the patient with acute diarrhea because it produces.....
- 4) The possible hazardous effects associated with prolonged use of lomotil are ..... and .....
- 5) If the causative organism is salmonella, the antimicrobial drug of best choice is ....., while if it is E coli the antimicrobial drug of best choice is .....
- 6) The best chemotherapeutic drug for treatment of parasitic diarrhea caused by amoebiasis is ..... and by S. mansoni is .....
- 7) Thyroid gland disorders may be accompanied with diarrhea via ..... and .....
- 8) The antimicrobial drugs which induce pseudomembranous colitis are ....., and treated with ..... And .....
- 9) Metronidazole may be used in Crohn's disease due to ....., while infliximab treat the same disease via.....
- 10) For prevention of traveler's diarrhea in susceptible persons, the drugs of best choice are ..... and .....

### IV: Case Urinary tract infection (U.T.I)

Refer to the above to answer the following questions:

- 1) What are the most common organisms that may produce U.T.I?
- 2) What are the two important lab. Diagnosis which needed for U.T.I?
- 3) Mention the therapeutic significance to determine the pH of the urine.
- 4) How can you change the urinary pH?
- 5) What are the most common chemotherapeutic drugs that used for initial treatment of this case until the results of culture & sensitivity are available?
- 6) If the results of culture & sensitivity are reported that nitrofurantoin is best choice, what are the precautions for prescribing this drug?
- 7) If the causative microorganism is proteus, what are the two sensitive and two resistant chemotherapeutic drugs to this microorganism?
- 8) Mention the pharmacodynamics underlying the use of ciprofloxacin in the treatment of acute U.T.I.
- 9) What are the drugs that decrease absorption of quinolones from G.I.T?
- 10) In the elderly patient with pyelonephritis mention the drugs, which is not given with gentamycin to avoid its nephrotoxicity.

Let us hope that ALLAH will help you



## Clinical Pharmacology

### Paper I

#### Answer the following questions:

1. List inhibitors of **renin-angiotensin system**. Discuss the mechanism of action, clinical uses, adverse effects, precautions and contraindications of **angiotensin converting enzyme inhibitors (ACEIs)** (15 Marks)
2. Discuss drugs that inhibit **platelet activity** (*antiplatelets*). (10 Marks)
3. Mention the main differences between: (20 Marks)
  - a. Celecoxib. And indomethacin.
  - b. First and second generations anti histaminics.
  - c. Hydrochlorothiazide and spironolactone.
  - d. First order and zero order elimination.
  - e. Enzyme induction and enzyme inhibition.
4. Write short notes on: (15 Marks)
  - a. Volume of distribution (Definition – calculation- clinical significance).
  - b. Neostigmine substitutes (selectivity, Duration. and Uses) .
  - c. Myasthenia gravis (diagnosis and treatment).
5. Mention the mechanism of action, therapeutic uses and side effects of: (15 Marks)
  - a. Omeprazole.
  - b. Frusemide.
  - c. Allopurinol.

#### ملاحظات هامة:

١. للطالب كراسة إجابة واحدة فقط ولا يحق للطالب طلب كراسة أخرى مهما كانت الأسباب.
٢. يكتب رقم السؤال في وسط السطر ويفضل أن يكون في أول الصفحة قبل بدء الإجابة.
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امتحانات الشفوى تبدأ من الساعة الثامنة صباحاً بالقسم

ممنوع منعاً باتاً تغيير موعد الشفوى وكذلك لجان الشفوى وتوزيعها كالاتى:

الخميس من : ٥٠٢٤ إلى ٦٠٩٨

الجمعة من : ٦٠٩٩ إلى الآخر

## Clinical Pharmacology

### Paper II

Answer the following questions:

- 1) Classify **glucocorticoides**, list the therapeutic uses, side effects and contra indications. (15 Marks)
- 2) Discuss **xanthines** from stand point of classification, pharmacokinetics, mechanism of action, pharmacological effects, adverse effects and precautions. (15 Marks)
- 3) Mention the **mechanism of action** of each of the followings: (15 Marks)
  - a. Glibenclamide.
  - b. Metronidazole.
  - c. Quinolones.
  - d. Glucosidase inhibitors.
  - e. Selegiline.
- 4) List **untoward effects** of: (15 Marks)
  - a. Valproic acid.
  - b. Diphenylhydantoin.
  - c. Acetaminophen.
  - d. Benzodiazepine.
  - e. Cephalosporins.
- 5) Mention **drug-drug interactions** with: (15 Marks)
  - a. Oral hypoglycemics.
  - b. Aminoglycosides.
  - c. Macrolides.
  - d. Tetracyclines.
  - e. Vit. D.

Let us hope that ALLAH will help you

### Clinical Pharmacology

#### I. Case (1) ischemic heart disease

Refer to the case above write letter I for the right statement and F for the false statement **and correct the false one.**

- 1) Nitrate is the drug of choice in acute attack of ischemic heart attack (angina pectoris).
- 2) The mechanism of action of nitrate is due to decrease cAMP.
- 3) An oral administration of nitrate is ideal in acute attack.
- 4) B-blockers antagonize tachycardia produced by nitrate.
- 5) Beta blockers and sustained release nitrate are good combinations for prevention of recurrence of acute attack.
- 6) Aspirin (75mg) is prescribed to relieve pain.
- 7) Cardiac depressant effect is the main untoward effect of calcium channel blockers (nifedipine) in this case.
- 8) Statins are prescribed for correction of combine hypertriglycerdemia and hypercholesterolaemia.
- 9) Morphine is the ideal pain killer if acute infarction occurs.
- 10) Morphine can cause hypertension.

#### II. Case (2) Peptic ulcer

Refer to the case above to explain each of the following:

- 1) Lanzoprazole is one of the very effective drugs for treatment of peptic ulcer.
- 2) Misoprosotol could be used to allow healing of peptic ulcer.
- 3) Sucralfate is safe during pregnancy.
- 4) Misoprostol is contraindicated during pregnancy.
- 5) Diclofenac is contraindicated in this case.
- 6) If the patient is taking aluminum hydroxide it is better to avoid oral tetracycline therapy.
- 7) Diarrhea is a side effect of misoprostol.
- 8) Amoxicillin could be combined with metraonidazole for treatment of peptic ulcer.
- 9) Prescription of magnesium sulphate with aluminum hydroxide is beneficial.
- 10) Reserpine is avoided in peptic ulcer.



### III. Case (3) NIDDM:

Refer to the case above and write  $\surd$  on the right statement and  $\times$  on the wrong statement **and correct the wrong one** in the followings:

- 1) In non-diabetic the  $\alpha$ -cells of islets of Langerhans are more than 75% of total cells and secrete somatostatin.
- 2) The F-cells secrete amylin, which appears to decrease hepatic glucose output.
- 3) Gestational D.M. is treated with oral anti-diabetic drugs.
- 4) Impaired glucose tolerance (IGT) can be treated with diet regime alone.
- 5) Total calories required for these patients are divided over food elements as the following 40% from protein 20% from carbohydrate and 20% from fat.
- 6) The endogenous insulin in this patient is absolutely absent, so the incidence of ketosis is frequent.
- 7) Glucose enters B-Cells via glucose transporters and is metabolized, increasing ATP, which closes the ATP dependent  $K^+$  channel, leading to depolarization of cell membrane.
- 8) Sulphonylureas activate (open) the  $K^+$  channels and close  $Ca^{++}$  channels.
- 9) The first generation is more potent than second – generation sulphonylureas.
- 10) Treatment of this patient is started by diet control and oral hypoglycemic drugs e.g. sulphonylureas and repaglinide.

### IV. Case (4) Rheumatic fever :

Refer to the case above to answer the following questions:

- 1) Mention two major and one minor manifestations of this case?
- 2) If throat swab was cultured, what is the suspected microorganism was found?
- 3) What is the preferred antibiotic for eradication of this microorganism?
- 4) If there is hypersensitivity reactions to the selected drug (in No.3), what is alternative drug?
- 5) What are the three main groups of drugs used in the treatment of this patient?
- 6) If this patient is a child suffering from associated viral infection, what is precaution during treatment? Why?
- 7) Why oral administration of paracetamol alone is not sufficient for treatment of this patient?
- 8) Acute toxicity of paracetamol produces severe organ injury- what is this organ? And what is the specific drug for treatment of this toxicity?
- 9) What are the indications of corticosteroid therapy in rheumatic fever?
- 10) What are the criteria of success of your treatment?

**Let us hope that ALLAH will help you**

## Experimental & Clinical Pharmacology

### Experimental pharmacology:

*Describe how you proceed experimentally to prove that:*

- I. The effect of A.ch. on isolated rectus abdominis of toad. (8 Marks)
- II. The isolated rabbit's intestine has both  $\alpha$  and  $\beta$  adrenergic receptors. (8 Marks)

### Clinical Pharmacology

#### III. Case 1: Bronchial asthma (B.A.)

(13 Marks)

*Refer to the case above and answer the following questions (the answer is Yes or No):*

1. Phenylephrine is preferred sympathomimetic for treatment of acute B.A.
2. The sympathomimetic used in the treatment of chronic B.A. is ephedrine.
3. Theophylline is indicated for treatment of B.A. because it has marked antihistaminic effect.
4. Ciprofloxacin reduce the clearance of theophylline.
5. Rectal administration of theophylline causes local irritation and it's absorption is erratic.
6. The selective  $\beta_2$  agonists have replaced now the non-selective preparations in the treatment of hypertensive patients with B.A.
7. There is no additive risk of cardiac adverse effects if theophylline is added to a therapeutic regimen that includes  $\beta_2$  agonists.
8. Montelukast may inhibit the inflammatory reactions that contribute to bronchospasm in a patient with asthma.
9. Glucocorticoids are contraindicated in a patient with severe acute B.A. associated with millitary T.B. under anti T.B regimen.
10. The inhaled triamcinolone exert local action with minimal systemic absorption and reduced adverse effects in asthmatic patient.
11. Disodium cromoglycate is not effective in chronic B.A.
12. PG F<sub>2</sub> $\alpha$  is indicated in a pregnant patient with B.A.
13. Ipratropium bromide is less effective than  $\beta_2$  agonists, so it must be combined with  $\beta_2$  agonists to produce adequate bronchodilation.

**IV. Case 2: Insulin dependent diabetes mellitus (I.D.D.M)**

(13 Marks)

*Refer to the case above and answer the following questions:*

1. What are the non-pharmacological advices for this patient?
2. What is the most effective drug prescribed for this patient to maintain more or less euglycemic state?
3. Mention the different preparations of the selected drug (In No. 2).
4. How you proceed to adjust the dose for this patient?
5. What is the definition of oral hypoglycaemics, oral antihyperglycaemic drugs? and give one examples for each.
6. What is the indication of addition of oral antidiabetic drugs in this patient?
7. Seven days later, the patient came to you suffering from severe allergy subsequent to intake of selected drug (In No.2), What are the modifications in treatment of such situation?
8. Two months later, the patient got fever ( $39^{\circ}\text{C}$ ), on examination a gluteal abscess was found, culture and sensitivity report was found gram +ve bacterial infection. What is the drug of the 4<sup>th</sup> generation quinolones effective in such situation.
9. If this patient develops acute viral hepatitis, what are the two antiviral drugs which are contraindicated in this stage?
10. The diabetic patient is predisposed to oral fungal infection, what are the topical antifungal drugs used in oral candidiasis?
11. Name two non-hormonal drugs which induced hyperglycaemia?
12. What is the drug used prophylactically for treatment of chronic complications (e.g. neuropathy) in uncontrolled diabetes? What is the mode of action?

**V. Case 3: Acute Rheumatic fever:**

(13 Marks)

*Refer to the case above and answer the following questions:*

1. Mention three diagnostic criteria of this case.
2. What are the non-pharmacological advices for this patient?
3. If throat swab was cultured, what is the suspected microorganism was found?
4. Mention three antimicrobial drugs can be used for eradication of this microorganism.
5. For suppression of acute inflammatory reactions, what is the drug of best choice for this patient.
6. Mention the dose, route of administration and duration of therapy of selected drug (in No.5).
7. What are the two alternative drugs prescribed when there is contraindication of drug selected (in No. 5)?
8. Mention the drug used to prevent of recurrence in this patient and its dose, route of administration and duration of therapy.
9. What are the indications of corticosteroid therapy in rheumatic fever?
10. Mention preferred one preparation of corticosteroid and its proper dose and duration of therapy in this case.
11. If the drug (in No.10) is suddenly stopped, what is the most likely complication?
12. If this patient has associated T.B. infection what is the precaution that should be taken?



Experimental & Clinical Pharmacology

الأسئلة في ثلاث ورقات مختلفة

Experimental pharmacology:

Describe how you proceed experimentally to prove that:

- I. How to identify experimentally the inhibitory effect of papaverine on the isolated rabbit's intestine. (6 Marks)
- II. How to prove experimentally the reversal action of A.ch. on the B.P. of the dog. (5 Marks)

Clinical pharmacology

III. Case 1: Hypertension

(15 Marks)

Refer to the case above and answer the following questions:

- 1) Mention three items of non-pharmacological advices of this patient.
- 2) If this case is moderate hypertension; what are the groups which you can prescribe for treatment?
- 3) Give one example for each group selected above.
- 4) If this case becomes hypertensive encephalopathy, what are the drugs prescribed to produce immediate effect.
- 5) Mention two antihypertensive drugs, which act centrally?
- 6) Name two antihypertensive drugs which induce tachycardia.
- 7) What are the antihypertensive drugs; which induce postural hypotension?
- 8) Mention two antihypertensive drugs, which are preferred in hypertensive heart failure.
- 9) What are the main mechanisms induced by propranolol as antihypertensive?
- 10) What is the effect of prolonged use of propranolol on the heart rate? How to antagonise this adverse effect?
- 11) If the cause of hypertension is pheochromocytoma, what are the drugs prescribed for treatment?
- 12) What are the antihypertensive drugs, which are contraindicated if there is, associated hyperkalemia?
- 13) Name two angiotension-receptor blockers, which can be used as antihypertensive.
- 14) Why ACEIs do not cause reflex tachycardia in spite of they may induce hypotension?
- 15) Mention two only arteriolar vasodilators which, can be used for treatment of hypertension?



#### V Case 2 Thyrotoxicosis

(15 Marks)

Refer to the case above and **write** ✓ on the right statement and X on the **wrong** statement and then correct the wrong one in the following

- 1) The antithyroid drug used to start the treatment in simple thyrotoxic young patient is radioactive iodine.
- 2) Lugol's iodine therapy should be continued for 3 months.
- 3) Iodides not used now because they may induce fatal aplastic anemia.
- 4) Radioactive iodine is preferred in thyrotoxic female patient during pregnancy and lactation.
- 5) The  $t_{1/2}$  of propylthiouracil is shorter than that of methimazole.
- 6) Repeated leucocytic count should be investigated during thiouracil therapy.
- 7) Neomercazole acting by inhibition of uptake of iodide to the thyroid gland.
- 8) Neomercazole is converted to active metabolite (Methimazole).
- 9) Iodides acting through inhibition of release of thyroxin from the gland.
- 10) Operative interference is indicated if there are many thyrotoxic nodules.
- 11) Thiouracil treatment decreases the size and vascularity of the gland.
- 12) D-Thyroxin is the isomer of choice for replacement therapy in myxedema and cretinism.
- 13) Iodate inhibits the conversion of  $T_4$  to  $T_3$  and release of thyroxin from the gland.
- 14) If there is thyrotoxic heart failure ACEIs are the preferred drugs for treatment.
- 15) Nifedipine is indicated to control tachycardia in thyrotoxic patient when there is contraindication of propranolol.

#### V Case 3 Peptic Ulcer

(15 Marks)

Refer to the case above to complete the following statements:

- 1) The general measures in treatment of peptic ulcer are ..... and .....
- 2) The cytoprotective prostaglandins synthesized by gastric mucosa are ..... and .....
- 3) The parietal cells of stomach have specific receptor named ..... and .....
- 4) At the luminal membrane of parietal cells, the enzyme serving as proton pump is called .....
- 5) The epigastric pain of duodenal ulcer is rapidly relieved by .....
- 6) Antacids may change the bowel habits as aluminum salts cause ..... due to ..... while magnesium salts cause ..... due to .....
- 7) Medication groups that decrease gastric acid secretion are ....., ..... and .....
- 8) Sucralfate and colloidal bismuth compounds are not given simultaneously with ranitidine because .....
- 9) The triple therapy to eradicate helicobacter pylori are ..... and .....
- 10) Gaviscon is combination of the following agents ..... and .....
- 11) The drugs which can aggravate peptic ulcer are ..... and .....

#### Case 4 Urinary tract infection (U.T.I)

(15 Marks)

Refer to the case above and answer the following questions:

- 1) What are the most common two organisms that may produce U.T.I?
- 2) Mention the types of U.T.I?
- 3) What is the most important laboratory diagnostic test which is essential in chronic and recurrent U.T.I? **and Why?**
- 4) If laboratory test revealed sensitivity of organism to ampicillin, Co-trimoxazole and tetracycline, what is the suitable pH of urine for action of each drug?
- 5) What are acidifying agents could be used for acidification of the urine?
- 6) What is indication of chemoprophylaxis in U.T.I?
- 7) Mention the drugs used routinely in chemoprophylaxis.
- 8) In acute bacterial pyelonephritis, mention the suitable analgesic drug **and Why?**
- 9) What are urinary antiseptics used in U.T.I. and precautions during their uses?
- 10) What are the antimicrobials which are given cautiously in presence of renal impairment **and what** are modifications in dosage regimen if it is necessary to use these antimicrobial drugs?
- 11) Mention two drugs contraindicated in U.T.I during pregnancy **and what** are the alternative two drugs used safely.

VII Mention one drug only of the best choice and its dosage regimen for treatment of the following diseases: (9 Marks)

- 1) C.H.F with AF.
- 2) Hyperglycaemic coma.
- 3) Acute gouty arthritis.
- 4) Acute pulmonary edema.
- 5) Anaphylactic shock.
- 6) Acute pulmonary embolism.

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Clinical Pharmacology

الأسئلة في وقتين مختلفتين

I. Case 1: Diarrhea

(20 Marks)

Refer to the case above and complete the following statements

1. The microorganisms which causes infectious diarrhea are ..... and.....
2. The treatment of this infectious diarrhea (No.1) are ..... and .....
3. The parasitic infestations which cause diarrhea are .....and .....
4. The treatment of this type of diarrhea (No.3) are ..... and .....
5. The hormones which causes secretory diarrhea are .....and .....
6. The drugs induced iatrogenic diarrhea are ..... and .....
7. The drug which induces pseudomembranous diarrhea is ..... and treated by .....
8. Inflammatory bowel diseases are cronh's diseases which is treated by .....and ulcerative colitis which is treated by .....
9. The first line of treatment of acute severe diarrhea is .....
10. The drugs which you like to add for treatment of associated abdominal cramps, are .....and .....
11. The prophylaxis and treatment of traveler's diarrhea are ..... and .....
12. The two main synthetic opioids prescribed in this case are ..... and .....
13. The possible hazardous effects associated with prolonged use of these opioids are ..... and .....
14. The preferable drug which can be used for treatment of chronic diarrhea caused by bile salts malabsorption is .....
15. 90% of acute cases of childhood diarrhea can be corrected using .....to maintain fluid and electrolytes balance.
16. If there is associated vomiting, the anti-emetic of best choice with no C.N.S effects is .....
17. The osmotic diarrhea is caused by ..... and .....
18. Myxedema can cause diarrhea by ..... and can be treated with .....
19. If there is associated amaebe hepatitis with bouts of dysentery, the drugs of the best choice for treatment are..... and .....
20. The most probable cause of death in acute severe diarrhea is .....



## II. Case 2: Urinary tract infection (U.T.I.)

(20 Marks)

Refer the case above and answer the following questions:

1. What is first and rapid laboratory diagnostic test for U.T.I.?
2. What are the antimicrobial drugs routinely used in simple U.T.I.?
3. If urine culture and sensitivity test was done and revealed that organism is highly sensitive to nitrofurantion, what is the suitable pH of urine for more effectiveness of the drug?
4. Why the proteus infection causing alkaline urine? What are the effective antimicrobial drugs in this situation?
5. What are the drugs used to maintain the pH of urine is alkaline?
6. What are the acidifying agents could be used for acidification of the urine?
7. Mention the indications of chemoprophylaxis in U.T.I.
8. What are the drugs routinely used in chemoprophylaxis?
9. Mention two antimicrobial drugs which are used for treatment of pseudomonas U.T.I. effectively.
10. Why ciprofloxacin used with low doses (250mg/12h) in this situation?
11. What is the duration of therapy of ciprofloxacin in U.T.I.?
12. Why ciprofloxacin increases the serum level of theophylline, warfarin and sulphonylurea?
13. How you solve the previous problem for these interactions (No.12) to avoid the hazardous adverse effects?
14. What are urinary antiseptics can be used in U.T.I.? and mention the main contraindication of their use.
15. Mention two antituberculous drugs used safely in the treatment of renal T.B. infection with kidney dysfunction.
16. Mention two causes of failure in the treatment of U.T.I.
17. Name two antimicrobial drugs which are contraindicated in renal impairment.
18. Mention two antimicrobial drugs which are contraindicated in the treatment of U.T.I. with pregnancy.
19. What are the alternative two drugs can be used safely during pregnancy?
20. Name two antimicrobial drugs which may induce bone marrow depression.

## III. Define and treat the following emergency cases

(12 Marks)

- |                                   |   |
|-----------------------------------|---|
| a. Acute severe bronchial asthma. | b. Septic shock.                                  |
| c. Status epilepticus.            | d. Addisonian crisis (prophylaxis and treatment). |

## IV. Mention one main therapeutic indication and the proper dose regimen for this indication of each of the following drugs.

(8 Marks)

- |                   |                     |
|-------------------|---------------------|
| - Ergotamine.     | - Colchicine.       |
| - Neostigmine.    | - Diazepam.         |
| - Co-trimoxazole. | - Warfarin.         |
| - Chloroquine.    | - Propylthiouracil. |

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**Case 4 Urinary tract infection (U.T.I)**

Refer to the case above and answer the following questions:

- 1) What are the most common two organisms that may produce U.T.I?
- 2) Mention the types of U.T.I?
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- 4) If laboratory test revealed sensitivity of organism to ampicillin, Co-trimoxazole and tetracycline, what is the suitable pH of urine for action of each drug?
- 5) What are acidifying agents could be used for acidification of the urine?
- 6) What is indication of chemoprophylaxis in U.T.I?
- 7) Mention the drugs used routinely in chemoprophylaxis.
- 8) In acute bacterial pyelonephritis, mention the suitable analgesic drug **and Why?**
- 9) What are urinary antiseptics used in U.T.I. and precautions during their uses?
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- 11) Mention two drugs contraindicated in U.T.I during pregnancy **and what** are the alternative two drugs used safely.

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Clinical Pharmacology

Case (1): Rheumatic fever

(14 Marks)

Refer to the case above and complete the following statements:

- 1- The major manifestation of rheumatic fever are .....
- 2- Laboratory tests used to confirm diagnosis of rheumatic fever are .....
- 3- The microorganism in culture of throat swab is .....
- 4- The preferred group antibiotic for eradication of this microorganism is .....
- 5- If there is hyper sensitivity reactions to the selected drug in (Q No.4) what is alternative drug.....
- 6- The acute inflammatory response could be suppressed by .....
- 7- If this patient is a child suffering from viral infection during treatment, NSAIDs should be stopped due to .....
- 8- Oral administration of paracetamol alone is not sufficient for treatment of rheumatic arthritis because .....
- 9- Acute toxicity of paracetamol appears in.....organ and treated by ..... as anti dote via .....
- 10- Benzathine penicillin is used to ..... in a dose of .....and for duration of .....
- 11-If this patient develops nasal bleeding during course of treatment, the drug which is responsible for that is ..... confirming by .....lab test.
- 12- The rationale for use of corticosteroid in rheumatic carditis is .....
- 13-If this patient has T.B. infection, the precautions that should be taken are .....

Case (2): Thyrotoxicosis

(15 Marks)

Refer to the case above and write ✓ on the right statement and X on the wrong statement and get the wrong one:

- 1- Laboratory diagnosis (serum  $T_3$ ,  $T_4$ ,  $T_5$ ) is essential for confirmation of diagnosis.
- 2- In this case, the euthyroid state could be reached after 9 months.
- 3- The antithyroid drug used to start the treatment in simple thyrotoxic of young patient is radio active iodine.
- 4- Lugol's iodine therapy should be continued for 2 months.
- 5- Potassium iodide is indicated when there is thyrotoxic crisis or preoperative preparation of thyrotoxic patient.
- 6- Carbimazole may decrease the size of thyroid gland.
- 7- Propylthiouracil is preferred than carbimazole in treatment of thyrotoxic storm.
- 8- The  $t_{1/2}$  of propylthiouracil is longer than that of methimazole.
- 9- Carbimazole is indicated when there is associated pregnancy in thyrotoxic females.
- 10- In hyperthyroid heart failure, beta blockers will be hazardous.
- 11- Amiodarone is preferred for treatment of thyrotoxicosis induced cardiac dysrhythmias.
- 12- Repeated leucocytic count is essential to be investigated during thiouracid therapy.
- 13- Propylthiouracil not inhibit the peripheral conversion of  $T_4$  to more active  $T_3$ .
- 14- Operative interference is indicated if there is more than one thyrotoxic nodule.
- 15- After thyroidectomy, the D-thyroxine supplementation is essential for main time of life.



### III Case (3): Peptic ulcer

(15 Marks)

Refer to the case above to explain each of the following:

- 1- Lansoprazole is one of the very effective drug for treatment of peptic ulcer.
- 2- Misoprostol could be used to allow healing of peptic ulcer.
- 3- Sucralfate is safe during pregnancy.
- 4- Bismuth subsalicylate are not given simultaneously with ranitidine
- 5- Colloidal bismuth compounds help in prevention recurrence and accelerates healing of the ulcer.
- 6- Misoprostol is contraindicated during pregnancy.
- 7- Diclofenac is contraindicated in this case.
- 8- If the patient is taking aluminum hydroxide it is better to avoid oral tetracycline therapy.
- 9- Diarrhea is a side effect of misoprostol .
- 10- Amoxicillin could be combined with metronidazole for treatment of peptic ulcer.
- 11- Antacids relieve epigastric pain
- 12- Prescription of magnesium sulphate with aluminum hydroxide is beneficial.
- 13- Pirenzepine is the parasympatholytic of choice for treatment of peptic ulcer.
- 14- Cimetidine potentiate the effect of glipizide.
- 15- Reserpine is avoided in peptic ulcer.

### IV: Mention one drug, dosage regimen and route of administration which indicated for treatment of the following

(16 Marks)

- a. Acute attack of angina pectoris.
- b. Anaphylactic shock.
- c. Acute gouty arthritis.
- d. Postpartum hemorrhage.
- e. Typhoid fever.
- f. Acute attack of malaria.
- g. Supra ventricular tachycardia.
- h. Urogenital trichomoniasis

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Mansoura University  
Faculty of Medicine  
Clinical Pharmacology Dept.

Final year exam  
Time allowed: (2 hours)  
May 2007  
Date: 10/5/2007

Clinical Pharmacology

Case (1) ischemic heart disease

(10 Marks)

Refer to the case above write Letter T for the right statement and F for the false statement and correct the false one.

1. Nitrate is the drug of choice in acute ischemic heart attack (angina pectoris).
2. The mechanism of action of nitrate is due to decrease cAMP.
3. An oral administration of nitrate is ideal in acute attack.
4.  $\beta$ -blockers antagonize tachycardia produced by nitrate.
5. Nifedipine and sustained release nitrate are good combination for prevention of recurrence of acute attack.
6. Aspirin (75 mg) is prescribed to relieve pain.
7. Cardiac depressant effect is the main untoward effect of calcium channel blockers (nifedipine) in this case.
8. Statins are prescribed for correction of hypertriglycerdemia.
9. Morphine is the ideal pain killer if acute infarction occurs.
10. Morphine acting through its analgesic effect only.

II. Case (2) Urinary tract infection

(10 Marks)

Refer to the case above to answer the following questions: (the answer is Yes or No)

1. The commonest organism that produces UTI is *Pseudomonas pyocyaneus*.
2. *Proteus* infection usually changes the urine pH to the acid side.
3. Acidification of the urine enhances the activity of nitrofurantoin.
4. Alkalization of the urine enhances the activity of tetracyclines.
5. For symptomatic relieve of dysuria ascorbic acid 1-2 gm/day will be very effective until the organism is eradicated by the antibiotic.
6. In presence of renal failure the  $t_{1/2}$  of gentamycin is decreased.

7. In presence of renal insufficiency urine acidification by ammonium chloride may lead to dangerous acidosis.
8. Co-trimoxazole is very effective for initial treatment of urinary tract infection if E-coli is suspected.
9. Ticarcillin is active against proteus infection and is excreted mainly by renal route.
10. Pseudomonas infection could be treated by cefepime.
11. Tetracycline is very effective for eradication of pseudomonas infection.
12. Pseudomonas infection could be treated by ciprofloxacin.
13. Combination of gentamycin with cephaloridine decrease the risk on the kidney.
14. Ciprofloxacin concentrates in the kidney and could be used to treat urinary tract salmonella infection.
15. Ciprofloxacin act by inhibition of bacterial cell wall synthesis.
16. In severe pyelonephritis gentamycin can be combined with a loop diuretic to increase entry of gentamycin into the kidney.
17. In presence of renal fungal infection. I.V amphotercin B is very safe even in presence of renal impairment.
18. If nitrofurantoin is given in presence of impaired renal functions it dose not deteriorate renal functions more , but it could produce peripheral neuropathy.
19. Renal clearance of gentamycin is increased in the elderly.
20. Piroxicam is very safe as long term analgesic in case of chronic pyelonephritis.

### III. Case (3): Type 1 diabetes mellitus

(10 Marks)

*Refer to the above case and complete the following statements*

1. The first line to start treatment of this case ..... (name, type)
2. The drug chosen is administered ..... (route, frequency)
3. The main serious side effect of the chosen drug is .....
4. The above mentioned side effect can be treated with .....

7. In presence of renal insufficiency urine acidification by ammonium chloride may lead to dangerous acidosis.
8. Co-trimoxazole is very effective for initial treatment of urinary tract infection if E-coli is suspected.
9. Ticarcillin is active against proteus infection and is excreted mainly by renal route.
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20. Piroxicam is very safe as long term analgesic in case of chronic pyelonephritis.

### III. Case (3): Type 1 diabetes mellitus

(10 Marks)

*Refer to the above case and complete the following statements*

1. The first line to start treatment of this case ..... (name, type)
2. The drug chosen is administered ..... (route, frequency)
3. The main serious side effect of the chosen drug is .....
4. The above mentioned side effect can be treated with .....

If the patient was allergic to the chosen drug, the modifications in treatment of such situation are .....

If the patient has chest infection (Pneumococci), the drug of the 4<sup>th</sup> generation quinolones effective in such situation is .....

Combination of insulin and oral antidiabetic drugs is needed when .....

In diabetic patient the topical antifungal drugs used in oral candidiasis are .....

List 2 main differences between type I and type II diabetes mellitus.

the drug used prophylactically for treatment of chronic complications (e.g. neuropathy) in uncontrolled diabetes is .....and acts via .....

**VI. Case (4) Bronchial asthma.**

**(7 Marks)**

Refer to the case above to explain each of the following

1. Patient refractory to adrenergic stimulants can respond to aminophylline.
2. Theophylline must be administered very slowly when given I.V.
3. Inhaled fluticasone is very helpful in treatment of bronchial asthma.
4. Ketotifen when given in between the attacks is very helpful.
5. If this patient suffers from acute retention of urine you can not give him neostigmine.
6. The toxicity of theophylline could be increased if combined with erythromycin.
7. Salbutamol is preferred bronchodilator if the patient is hypertensive.

**Write the proper dose and the route of administration of each of the following drugs: (3 Marks)**

- a. Propranolol for treatment of thyrotoxic crises.
- b. Warfarine in treatment of deep venous thrombosis.
- c. Ranitidine for treatment of duodenal ulcer.
- d. Benzathine penicillin in prophylaxis of rheumatic fever.
- e. Primaquine in treatment of plasmodium vivax.
- f. Diazepam in status epilepticus.



Clinical Pharmacology

Paper I

Answer the following questions:

- 1) Adrenergic receptor **agonists** are used for treatment of many diseases. Mention the pharmacodynamics of the drug of best choice in each indication. (15 Marks)
- 2) Enumerate the drug groups used in treatment of **vomiting** (give examples), explain the mechanism of action and main clinical indication of each group. (15 Marks)
- 3) Compare and contrast in a **table** the main **three** difference between:  
(15 Marks)
  - a. First order elimination and zero order elimination.
  - b. Tolerance and intolerance.
  - c. Competitive and non competitive antagonism.
  - d. Diphenhydramine and loratidine.
  - e. Celecoxib and indomethacin.
- 4) The antihypertensive drugs are commonly used in clinical practice. Classify these drugs. Explain the mechanism of action, clinical uses, adverse effects and contraindications of **angiotensin converting enzyme inhibitors (ACEIs)**. (15 Marks)
- 5) What are drug interactions and contraindications or precautions during use of the following: (15 Marks)
  - a. Hypouricaemics drugs.
  - b. Potassium sparing diuretics.
  - c. Peripheral skeletal muscle relaxants.

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Clinical Pharmacology

Paper II

Answer the following questions:

- 1) Enumerate the **antimicrobial** drugs that could be used in treatment of **pseudomonas infection**. Discuss the mechanism of action and adverse effects of each drug. (15 Marks)
- 2) The following **antidotes** are of particular importance in medical practice. Mention their **indication/s** and the mode of action in each indication. (15 Marks)
  - a. Flumazenil.
  - b. Atropine.
  - c. N-acetylcystine.
  - d. Propranolol.
  - e. Phytomenadione.
- 3) Classify the following **group of drugs**. Explain mechanism of action and clinical uses of each drug. (15 Marks)
  - a. Coagulants and haemostatics.
  - b. Xanthines.
  - c. Adrenocortical hormone antagonists.
- 4) **List** drugs that could be used for treatment of each of the following diseases (explain the pharmacodynamic of each drug) : (15 Marks)
  - a. Osteoporosis.
  - b. Alzheimer's disease.
  - c. Petit mal epilepsy.
  - d. Malarial infection with choloquine resistant P. falciparum.
  - e. Hyperosmolar non ketotic coma.
- 5) For each of the following adverse effects, name **two** drugs from **different groups** that could induce this adverse effect. Mention how can you **treat** it: (15 Marks)
  - a. Agranulocytosis.
  - b. Hyper calcaemia.
  - c. Heart block.
  - d. Constipation.
  - e. Hyperacidity.

تنبيه هام

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Clinical Pharmacology

Paper I

Answer the following questions:

- 1) Define each of the following and explain its clinical importance:
  - a. Half-life of elimination of drug ( $t_{1/2}$ ) (5 Marks)
  - b. Pharmacogenetics. (10 Marks)
- 2) Cholinomimetics are used for treatment for many disease states. classify these drugs and explain the rational for their use in each disease. (15 Marks)
- 3) Classify drugs that could be used for treatment of congestive heart failure. Explain the mechanism of action of each drug. (15 Marks)
- 4) Name **one drug** acting on the following targets. Mention **one therapeutic use** for each drug: (16 Marks)
  - a.  $H^+/K^+$  ATPase enzyme inhibitor.
  - b.  $5HT_4$  receptor agonist.
  - c. Cyclooxygenase III enzyme inhibitor.
  - d.  $Na^+$  channel blocker.
  - e.  $5HT_{1B/1D}$  receptor agonist.
  - f. Xanthine oxidase inhibitor.
  - g. Potassium channel opener
  - h. 5-lipo-oxygenase inhibitor.
- 5) Explain the **rational (reasons)** for : (14 Marks)
  - a. Atropine administration may be hazardous for elderly and infants.
  - b. Sudden cessation of clonidine therapy is not advisable.
  - c. Prazosin not phentolamine is used for treatment of benign prostatic hyperplasia.
  - d. Spironolactone is commonly used as diuretic for patient with ascites due to liver cirrhosis.
  - e. Promethazine not loratidine can improve anxiety but produce syncope on sudden postural change.
  - f. Thiazide diuretic are used for treatment of hypercalcuria.
  - g. Lactulose is used for treatment of portal systemic encephalopathy.

**Lets us hope that ALLAH will help you**

سوف يعقد بمشيئة الله تعالى امتحان العملى والشفوى على النحو التالى:

يوم الاربعاء الموافق ٢٠٠٨/٩/٣ من رقم (٥٧٠٥ إلى الآخر). امتحان العملى : من (٩-١٠ صباحا)  
يوم الخميس الموافق ٢٠٠٨/٩/٤ من رقم (٥٠٠٨ إلى ٥٧٠٤). امتحان الشفوى : فى العاشرة والنصف صباحا

**تنبيه هام**

- (١) للطالب كراسة إجابة واحدة فقط ولا يحق للطالب طلب كراسة أخرى مهما كانت الأسباب.
- (٢) يكتب رقم السؤال فى وسط السطر ويفضل أن يكون فى أول الصفحة قبل بدء الإجابة.
- (٣) الإجابة باللون الأزرق فقط.
- (٤) ممنوع الإجابة من الجهة اليمنى إلى الجهة اليسرى من كراسة الإجابة.
- (٥) ممنوع وضع أى علامات أو عبارات باللغة العربية فى الكراسة ، فى حالة المخالفة سيتم إتخاذ الإجراءات القانونية اللازمة.



Clinical Pharmacology

Paper II

Answer the following questions:

(15 Marks)

- 1) For each of the following adverse effects, name two drugs from different groups that could induce this adverse effect and mention the other two common adverse effects for each drug. (15 Marks)

- Diarrhea.
- Osteoporosis.
- Hirsutism.
- Corneal deposit.
- Torsade de pointes arrhythmia.

- 2) Enumerate drugs that could be used for treatment of insomnia, explain the mechanism of action and clinical uses of each of them.

- 3) Mention in table the main differences between:

(15 Marks)

- Omeprazole and sucralfate.
- Guaiacol and bromhexine.
- Dantrolene and pancuronium.
- Morphine and butorphanol.
- Hydrochlorothiazide and spironolactone.

- 4) Give one example from each of the following groups and mention the therapeutic uses of each: (15 Marks)

- Transpeptidase enzyme inhibitors.
- GABA<sub>B</sub> receptor agonists.
- Eicosanoid antagonist.
- Antiandrogen.
- Potassium channel openers.

- 5) Write a short notes on:

- Therapeutic uses and drug interaction of furosemide. (4 Marks)
- Types and side effects of laxatives. (3 Marks)
- Mechanism of action and uses of antihyperglycemic drug. (6 Marks)
- Therapeutic uses of haemopoietic growth factors. (2 Marks)

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تيسر الله

(١) للطلاب كراسة إجابة واحدة فقط ولا يحق للطلاب طلب كراسة أخرى مهما كانت الأسباب.  
(٢) الإجابة باللون الأزرق فقط و ممنوع الإجابة من الجهة اليمنى إلى الجهة اليسرى من كراسة الإجابة.  
(٣) ممنوع وضع أى علامات أو عبارات باللغة العربية فى الكراسة ، فى حالة المخالفة سيتم إتخاذ الإجراءات القانونية اللازمة.  
امتحانات الشفوى تبدأ من الساعة الثامنة صباحاً بالقسم إن شاء الله وممنوع منعاً باتاً تغيير ميعاد الامتحان وكذلك لجان الشفوى.

د. فريد ل

## Clinical Pharmacology

### Paper I

Answer the following questions:

(15 Marks)

- 1) Muscarinic receptor blockers are used for treatment of many diseases, list these drugs and explain the national for its use in each disease.
- 2) Explain the pharmacological basis for the use of the following: (15 Marks)
  - a. Dexamethazone and dopamine in treatment of septic shock.
  - b. Carvediolol in treatment of heart failure.
  - c. Low molecular weight heparins (LMWHs) in treatment of thromboembolic disorders.
  - d. Methotrexate and infliximab in treatment of rheumatoid arthritis.
  - e. Sodium nitroprussid in treatment of hypertensive encephalopathy.
- 3) Discuss drugs that could be used for treatment of tuberculosis (T.B) from stand point of mechanism of action and the main untoward effects. (15 Marks)
- 4) Give an account on:
  - a. Clinical objectives of drug combination (mechanisms – effects – examples). (10 Marks)
  - b. Clinical significance of knowing the steady state plasma concentration of the drug (Cpss). (5 Marks)
- 5) What are the precautions during the use of the following? (15 Marks)
  - a. Nitroglycerin.
  - b. Nasal decongestants.
  - c. Oxygen.

**Let us hope that ALLAH will help you**

**تنبيه هام:**

(١) للطالب كراسة إجابة واحدة فقط ولا يحق للطالب طلب كراسة أخرى مهما كانت الأسباب.  
(٢) الإجابة باللون الأزرق فقط و ممنوع الإجابة من الجهة اليمنى إلى الجهة اليسرى من كراسة الإجابة.  
(٣) ممنوع وضع أى علامات أو عبارات باللغة العربية فى الكراسة ، فى حالة المخالفة سيتم إتخاذ الإجراءات القانونية اللازمة.  
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### Clinical pharmacology

*Answer the following questions: (The full mark of each question is 5 marks)*

**Give in details reasons of the following:**

- 1) ACEIs do not cause tachycardia inspite of hypotension.
- 2)  $\beta$ -blockers can be used in the treatment of heart failure.
- 3) Domperidone used in the treatment of gastroesophageal reflux.
- 4) Ondansetron used for prevention of vomiting-induced by cancer chemotherapy.
- 5) Thiopental sodium has ultrashort duration although it's  $t_{1/2}$  is 3-6 hrs.
- 6) PGE<sub>1</sub> is used in infants with congenital transposition of the great vessels, while PGE<sub>2</sub> can be used in patients with chronic use of NSAIDs.

**What are the rationale of the use of these combinations in the following diseases?**

- 7) Atenolol with nifedipine in angina.
- 8) Diuretics with  $\alpha$ -methyldopa in hypertension.
- 9) Leukotriene inhibitors with bronchodilators in aspirin-induced asthma.
- 10)  $\alpha$ -Blocker followed  $\beta$ -blocker in pheochromocytoma.
- 11) Mixture of oxygen and helium in severe acute B. A.

**Let us hope that ALLAH will help you**

**تنبيه هام:** ١) للطالب كراسة إجابة واحدة فقط ولا يحق للطالب طلب كراسة أخرى مهما كانت الأسباب.

٢) يكتب رقم السؤال في وسط السطر ويفضل أن يكون في أول الصفحة قبل بدء الإجابة.

٣) الإجابة باللون الأزرق فقط.

٤) ممنوع الإجابة من الجهة اليمنى إلى الجهة اليسرى من كراسة الإجابة.

٥) ممنوع وضع أى علامات أو عبارات باللغة العربية في الكراسة.

\* في حالة المخالفة سيجزم إتخاذ الإجراءات القانونية اللازمة \*

### Clinical pharmacology

Answer the following questions : (The full mark of each question is 5 marks)

- 1) Define  $t_{1/2}$  and write two important clinical significance of it.
- 2) How you can prolong the duration of drug effect?
- 3) What are the contraindications of  $K^+$  sparing diuretics?
- 4) Explain the mechanism of action of one drug of a best choice for treatment of the following situations:-
  - a. A.F. associated with heart failure.
  - b. Ventricular arrhythmia.
- 5) What are the untoward effects of the reversible cholinesterase inhibitors?
- 6) Mention two drugs which may induce the following effects:-
  - a. Contraction of the uterus (mechanism of each).
  - b. Na retaining of some antihypertensives and how to avoid?
- 7) Write the precautions with drugs used as nasal decongestants.

\* List in a table the differences between the following:

- 8) The cardiovascular effects of nifedipine and verapamil.
- 9) The first and second generations of beta-blockers.

\* Explain the mechanism of action and urinary effects of the following :

- 10) Atropine.
- 11) Osmotic diuretics.

Let us hope that ALLAH will help you

تنبيه هام: (١) للطالب كراسة إجابة واحدة فقط ولا يحق للطالب طلب كراسة أخرى مهما كانت الأسباب.  
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\* في حالة المخالفة سيتم اتخاذ الإجراءات القانونية اللازمة \*



Clinical Pharmacology

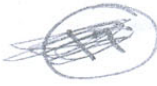
Answer the following questions: (The full mark of each question is 15 Marks)

- 1) Read the following statements carefully and answer the question following it:
  - a. Antagonism is important phenomena of drug combinations. Explain the different types of antagonism and give examples.
  - b. Loop diuretics is commonly used drugs in therapeutics. What are the adverse reactions (Side effects, precautions and/or contraindications) of furosemide?
- 2) Classify the oral antidiabetic drugs and mention the mechanism of action and common side effects of each group.
- 3) Mention the pharmacokinetics, clinical uses and adverse reactions of the following:
  - a. Macrolide antibiotics.
  - b. Azole antifungal.
- 4) Classify the vasodilator drugs. Mention the mechanism of action and the clinical uses of each group or drug.
- 5) What are the main differences between the following?
  - a.  $H_1$  and  $H_2$  blockers.
  - b. Dopamine and L-Dopa.
  - c. Mucolytics and tocolytics.
- 6) What are the adverse reactions of the following?
  - a. Aminophylline.
  - b. Oral contraceptives.
  - c. Blood transfusion.
  - d. Quinolones.
  - e. Aspirin.
- 7) Name two drugs which induce the following adverse effects and mention two main therapeutic indications of each drug:
  - a. Metallic taste.
  - b. Hypocalcaemia.
  - c. Hyperureacemia.
  - d. Histamine release.
  - e. Bleeding tendency.
- 8) Enumerate the following:
  - a. Drug therapy of chronic simple glaucoma.
  - b. Three contraindications of morphine and why?
  - c. Pharmacokinetics and adverse effects of acetaminophen.
  - d. List and compare between kinetics of different benzodiazepines.
  - e. Mechanism of action, indications and side effects of phenytoin.

Lets us hope that ALLAH will help you

تنبيه هام:

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  - ٥) ممنوع وضع أى علامات أو عبارات باللغة العربية في الكراسة ، في حالة المخالفة سيتم اتخاذ الإجراءات القانونية اللازمة.
- امتحانات الشفوى تبدأ من الساعة الثامنة صباحاً بالنسبة ممنوع منعاً باتاً تغيير ميعاد الشفوى وكذلك لجان الشفوى.



### Clinical pharmacology

Answer the following questions : (The full mark of each question is 5 marks)

- 1) Define  $t_{1/2}$  and write two important clinical significance of it.
- 2) How you can prolong the duration of drug effect?
- 3) What are the contraindications of  $K^+$  sparing diuretics?
- 4) Explain the mechanism of action of one drug of a best choice for treatment of the following situations:-
  - a. A.F. associated with heart failure.
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- 5) What are the untoward effects of the reversible cholinesterase inhibitors?
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- تفعية هام: (١) للطالب كراسة إجابة واحدة فقط ولا يحق للطالب طلب كراسة أخرى مهما كانت الأسباب.  
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(٤) ممنوع الإجابة من الجهة اليمنى إلى الجهة اليسرى من كراسة الإجابة.  
(٥) ممنوع وضع أي علامات أو عبارات باللغة العربية في الكراسة.

\* في حالة المخالفة سيتم اتخاذ الإجراءات القانونية اللازمة \*

Mansoura university

Faculty of medicine

Medical Microbiology and Immunology Department

Time : 2.30 hours

Date: 24 /6/2009.

### Third Year Final Examination of Microbiology and Immunology

#### All questions must be attempted:-

- 1- Structure and functions of the bacterial capsule. (3 marks)
- 2- Bacterial nutrition. (4 marks)
- 3- Functions of the plasmids. (4 marks)
- 4- Ames test for carcinogens. (4marks)
- 5- Steps of phagocytosis. (5marks)
- 6- Types of graft rejection and the procedure to enhance graft survival. (10 marks)
- 7- Diagnosis of scarlet fever . (5 marks)
- 8- Diagnosis of bubonic plague. (5 marks)
- 9- Diagnosis of gonorrhea . (5 marks)
- 10- Diagnosis of the 3rd stage of syphilis. (5 marks)
- 11- Twar pneumonia. (5 marks)
- 12- Vaccines given in the 1<sup>st</sup> year of life. (5 marks)
- 13- Antigenic shift & antigenic drift and reassortment of the influenza virus. (5 marks)
- 14- Rota virus infections. (5 marks)
- 15- Asexual fungal spore. (5 marks)
- 16- Diagnosis of oral candidosis. (10 marks)
- 17- Nosocomial infection control measures in case of MRSA outbreak. (5 marks)
- 18- A 35-years old male presented to the clinic complaining of anorexia, fever, jaundice enlarged tender liver associated with abnormal liver function tests . (10 marks)
  - a- what is the possible causative pathogen.
  - b- mention laboratory test to define the accurate pathogen.
  - c- method of transmission of this agent.
  - d- what is the method of prophylaxis against this pathogen.

*good luck*

سوف تعقد الامتحانات الشفهية بالقسم لجميع الطلاب كلا في مجموعته المحددة ولا يسمح بالتغيير  
حسب الجداول المعتمدة من إدارة الكلية .



**Third Year Examination of Microbiology and Immunology**

**All questions must be attempted:-**

- 1- Structure and functions of the bacterial spore. (5 marks)
- 2- Genetic content and functions of the plasmids. (5 marks)
- 3- uses of PCR. (5 marks)
- 4- Etiology & mechanisms of bacterial drug resistance . (5 marks)
- 5- Monoclonal antibodies: production and applications. (5marks)
- 6- Alternative pathway of the complement. (5 marks)
- 7- Cytotoxic type of hypersensitivity . (5 marks)
- 8- Acquired immunodeficiency . (5 marks)
- 9- Pathogenesis and diagnosis scarlet fever . (5 marks)
- 10- tuberculine test. (5 marks)
- 11- diagnosis of brucellosis. (5 marks)
- 12- surgical tetanus : causative organisms, pathogenesis, laboratory diagnosis, treatment and prevention. (10 marks)
- 13- Nosocomial infection control precautions, in the surgical theater . (5 marks)
- 14- types of human mycosis. (5 marks)
- 15- causative organisms, laboratory diagnosis , prophylaxis and treatment of Tinea pedis. (5 marks)
- 16-Pathogenesis, treatment and vaccination of rabies . (5 marks)
- 17-Cytomegalo virus, diseases produced, pathogenesis, laboratory diagnosis and treatment . (5 marks)
- 18-A football team suffered from nausea, vomiting and diarrhea 3 hours after eating koskosi and custard. Mention the causative agent, laboratory diagnosis and treatment for this case (10 marks)

*good luck*

الامتحان الشفهي لجميع الطلبة يوم الخميس الموافق ٢٠٠٩/٩/١٠

الامتحان العملي لجميع الطلبة يوم السبت الموافق ٢٠٠٩/٩/١٢

Medical Microbiology And Immunology Department

Third Year Final Examination of Microbiology and Immunology

All questions are to be answered:

I- General and Microbial Genetics:

- 1-a- Differences between exotoxins and endotoxins. (6 marks)  
b- Induced mutation in bacteria and its significance. (6 marks)

II- Medical Immunology:

- 2-a- Characters and functions of the complement. (6 marks)  
b- Graft versus host reaction. (6 marks)

III- Applied and Clinical Bacteriology:

- 3- Enumerate organisms causing pneumonia; mention the laboratory diagnosis of one of them. (10 marks)  
4- Differentiate between genera of Spirochetes and mention the laboratory diagnosis of a disease caused by one of them. (10 marks)  
5- Write a note on:  
a- B C G vaccine. b- T A B vaccine. (6 marks)  
6-a- Differences between *Vibrio cholera* and *Vibrio el-tor*. (5 marks)  
b- Sources of nosocomial infections. (5 marks)

VI- Medical Mycology:

- 7- Characters, pathogenicity and laboratory diagnosis of *Candida albicans*. (10 marks)

V- Medical Virology:

- 8-a- Effect of viruses on the cells. (5 marks)  
b- Acquired immune deficiency syndrome (AIDS). (5 marks)

Good Luck

١- تبدأ امتحانات العملى والشفوي الساعة الثامنة صباحا وغير مسموح بتغير موعد الامتحان لأي طالب.

٢- يجب الالتزام بعدم كتابة أي شئ باللغة العربية ويستعمل القلم الجاف الأزرق والأسود فقط والإجابة من الجهة اليسرى للكراسة.

**Third Year Final Examination of Microbiology & Immunology**

**All questions are to be answered:**

**1- Answer the following:**

- a- Character and function of mesosomes and ribosomes. (5 marks)
- b- Differentiate transcription and transduction. (5 marks)
- c- Enumerate antibiotics that inhibit protein synthesis. (5 marks)

**2- Give an account on :**

- a- Differences between interferon and antibody. (5 marks)
- b- Indications and methods of immunosuppression. (5 marks)
- c- Clinical types of immune complex mediated reactions. (5 marks)

**3- Answer the following:**

- a- Enumerate organisms causing meningitis, mention microbial characters of each and discuss laboratory diagnosis of the case. (10 marks)
- b- Laboratory diagnosis, prophylaxis and treatment of Malta fever. (6 marks)
- c- Compare and contrast Strept. viridans and Strept. pneumoniae. (5 marks)
- d- Differentiate Salmonella food poisoning and botulism. (5 marks)
- e- Write short note on B.C.G. (4 marks)
- f- Consequences of nosocomial infections and objectives of infection control program. (5 marks)

**4- Give an account on:**

- a- Laboratory diagnosis and treatment of Candidiasis. (5 marks)
- b- Antigenic variation of influenza virus. (5 marks)
- c- Poliomyelitis vaccines. (5 marks)

Good luck

\* مواعيد امتحانات العملى والشفوى كالتالى:

اليوم	الأحد	الاثنين	الثلاثاء	الأربعاء	الخميس	الجمعة	السبت
التاريخ	٧/٢	٧/٣	٧/٤	٧/٥	٧/٦	٧/٧	٧/٨
مجموعة ٥	مجموعة ٤	مجموعة ٦	مجموعة ١	مجموعة ٣	مجموعة ٢	مجموعة ٢	مجموعة ٢
مجموعة ٥	مجموعة ٤	مجموعة ٦	مجموعة ١	مجموعة ٣	مجموعة ٢	مجموعة ٢	مجموعة ٢

- غير مسموح بتغيير موعد الإمتحانات لأى طالب.
- يجب الالتزام بعدم كتابة أى شيء باللغة العربية ويستعمل القلم الجاف الأزرق والأسود فقط والأجابة من الجهة اليسرى للكراسة.

Mid Year Examination of Microbiology and Immunology

All questions are to be answered:

I- General and Microbial Genetics:

- 1-a- Differentiate cell wall of Gram positive and Gram negative bacteria. (5 marks)  
b- Character and function of bacterial plasmids. (5 marks)

II- Medical Immunology:

- 2-a- Character and function of T- cells. (5 marks)  
b- Graft versus host reaction. (5 marks)

III- Medical Bacteriology:

- 3-a- Extracellular antigens of Staphylococcus aureus. (5 marks)  
b- Differentiate the characters and pathogenicity of C. diphtheriae and C. diphtheroids. (5 marks)  
c- Causative organisms, pathogenicity and laboratory diagnosis of gas gangrene. (5 marks)

**Third Year Final Examination of Microbiology and  
Immunology**

**All questions must be attempted::**

**General Microbial and Genetic:**

- 1- Characters of different types of bacterial products. (5 marks)
- 2- Components and phases of translation of DNA to protein . (5 marks)

**Medical Immunology:**

- 3- Mechanisms of autoimmunity. (5marks)
- 4 -Major histocompatibility complex. (5 marks)

**Applied and Clinical Bacteriology:**

- 5- Characters of Chlamydia and mention diseases caused by different species. (5 marks)
- 6- Enumerate diseases caused by bacterial toxins, mention the mode of infection laboratory diagnosis and prophylaxis of one of them. . (5 marks)
- 7- Prophylactic measures against Wool sorters disease: (5 marks)
- 8- Prophylactic measures against whooping cough. (5 marks)
- 9-Causative pathogens and prophylaxis for Tuberculosis. (5 marks)
- 10-Causative pathogens and prophylaxis for Enteric fever (5 marks)
- 11-Mention the mode of infection laboratory diagnosis and prophylaxis of leptospirosis. (5 marks)
- 12- Causative pathogens and prophylaxis for Plague (5 marks)
- 13- Difference between botulism and Campylobacter food poisoning. (5marks)
- 14- Characters and diseases caused by Rickettsiae. (5 marks)
- 15- Nosocomial infection control policy. (10 marks)

**Medical Mycology:-**

- 17- fungal spores. (10 marks)

**Medical Virology:**

- 18- diseases caused by picornaviruses; laboratory diagnosis and prophylaxis . (5marks)
- 19- Oncogenic viruses and their association with human cancers. (5marks)

*good luck*



Medical Microbiology and Immunology Department

Third Year Final Examination of Microbiology and Immunology

All questions to be answered

- General and Microbial Genetics

1- a) Bacterial Enzymes . ( 5 marks )

b) Gene therapy ( definition, targets, strategies & types ) ( 5 marks )

- Medical Immunology:

2- a) Phagocytosis. ( 5 marks )

b) Mechanisms of Autoimmunity. ( 5 marks )

- Applied and Clinical Bacteriology:

3- a) diagnosis of pneumonic Anthrax. ( 5 marks )

b) diagnosis of Bubonic plague. ( 5 marks )

4- a) Immunization against Diphtheria ( 5 marks )

b) Immunization against Tetanus ( 5 marks )

5- Give an account on :

a) Schultz-Charlton reaction . ( 5 marks )

b) Cholera red reaction ( 5 marks )

6- Differences between :

a) Brucella numbers. ( 5 marks )

b) Yersinia species ( 5 marks )

Medical Mycology:

7- a) Laboratory diagnosis of Asprigellosis . ( 5 marks )

b) Anti-fungal drugs. ( 5 marks )

Medical Virology:

8- a) General characters of Picorna Viruses. ( 4 marks )

b) Immunization against

- Yellow fever. ( 3 marks )

- Rabies. ( 3 marks )

Good Luck



Medical Microbiology and Immunology Department

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Mid Year Examination of Microbiology and Immunology

All questions are to be answered:

I- General and Microbial Genetics:

- 1-a- Nutritional requirements of bacteria. (5 marks)
- b- Functional mutations in bacteria, causes and importance. (5 marks)

II- Medical Immunology:

- 2-a- Factors influencing immunogenicity. (5 marks)
- b- Cytotoxic or cytolytic reactions of hypersensitivity. (5 marks)

III- Medical Bacteriology:

- 3-a- Antigenic composition and virulence factors of *N. gonorrhoeae*. (5 marks)
- b- Causative organisms, laboratory diagnosis and prevention of enteric fever. (5 marks)
- c- Causative organisms, pathogenesis and laboratory diagnosis of plague. (5 marks)

Medical Microbiology and Immunology Department

Third Year Final Examination of Microbiology and Immunology

All questions are to be answered:

I- General and Microbial Genetics:

- 1- a- Character and function of bacterial capsule. (5 marks)  
b- Plasmid classification and replication. (5 marks)  
c- Causes of failure of antimicrobial therapy. (5 marks)

II- Medical Immunology:

- 2- a- Phagocytosis. (5 marks)  
b- Monoclonal antibody production. (5 marks)  
c- Graft versus host reaction. (5 marks)

III- Applied and Clinical Bacteriology:

- 3- Enumerate microorganisms causing pneumonia, discuss the pathogenesis and laboratory diagnosis of ONE of them. (10 marks)  
4- Causative organism, pathogenesis and diagnosis of syphilis. (10 marks)  
5- Differentiate between:  
a- Vibrio cholera and El-Tor vibrio. (5 marks)  
b- Mycobacterium tuberculosis and nontuberculous mycobacteria. (5 marks)  
c- D.P.T. and T.A.B. vaccines. (5 marks)  
6- Nosocomial blood stream infection. (5 marks)

VI- Medical Mycology:

- 7- a- Clinical types, causative pathogens, diagnosis and treatment of dermatophytosis. (10 marks)  
b- Fungal toxins. (5 marks)

V- Medical Virology:

- 8- a- Types, advantages and disadvantages of viral vaccines. (10 marks)  
b- Epstein-Barr virus. (5 marks)

Good Luck

- ١- تبدأ امتحانات العملي والشفوي الساعة الثامنة صباحاً (أيام ١١-١٢/٩/٢٠٠٨) وغير مسموح بتغيير موعد الامتحان لأي طالب.  
٢- يجب الالتزام بعدم كتابة أي شيء باللغة العربية ويستعمل القلم الجاف الأزرق والأسود فقط والإجابة من الجهة اليسرى للكراسة.

Medical Microbiology and Immunology Department

Third Year Final Examination of Microbiology and Immunology

All questions are to be answered:

I- General and Microbial Genetics:

- 1- a- Anaerobic oxidation in bacteria. (5 marks)
- b- Antimicrobial chemoprophylaxis. (5 marks)
- c- Chemical mutagens and isolation of mutants. (5 marks)

II- Medical Immunology:

- 2- a- Phases of humoral immune response. (5 marks)
- b- Apoptosis. (5 marks)
- c- Comparison of different types of hypersensitivity. (5 marks)

III- Applied and Clinical Bacteriology:

- 3- Mention the general characters of different types of food poisoning, discuss the pathogenesis and laboratory diagnosis of ONE of them. (10 marks)
- 4- Causative organisms, method of transmission and laboratory diagnosis of malignant pustule. (10 marks)
- 5- Discuss the:
  - a- Pathogenesis and laboratory diagnosis of gas gangrene. (5 marks)
  - b- Laboratory diagnosis of first case of cholera in non-endemic area. (5 marks)
  - c- Diseases caused by E.coli. (5 marks)
- 6- Mention causes, risk factors and infection control measures of surgical site infection. (5 marks)

VI- Medical Mycology:

- 7- a- Laboratory methods used for diagnosis of fungal infections. (10 marks)
- b- Antifungal therapy. (5 marks)

V- Medical Virology:

- 8- a- Pathogenesis, route of transmission, laboratory diagnosis and immunization of hepatitis B virus infection. (10 marks)
- b- Immunization against poliomyelitis. (5 marks)

Good Luck

- ١ - تبدأ امتحانات الشفوي الساعة الثامنة صباحاً (أيام ٢٤-٢٨/٦/٢٠٠٨) وغير مسموح بتغير موعد الامتحان لأي طالب.
- ٢ - يجب الالتزام بعدم كتابة أي شيء باللغة العربية ويستعمل القلم الجاف الأزرق والأسود فقط والإجابة من الجهة اليسرى للكراسة.

Medical Microbiology and Immunology Department

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Mid Year Examination of Microbiology and Immunology

All questions are to be answered:

**I- General and Microbial Genetics:**

- 1-a- Cell wall of Gram positive bacteria. (5 marks)
- b- Measurement of bacterial growth. (5 marks)

**II- Medical Immunology:**

- 2-a- Characters and functions of the complement. (5 marks)
- b- New approaches for vaccine production. (5 marks)

**III- Medical Bacteriology:**

- 3-a- Laboratory diagnosis of cholera. (5 marks)
- b- Prevention and control of tuberculosis. (5 marks)
- c- Differences between different genera of Spirochetes. (5 marks)

Medical Microbiology and Immunology Department

Mid Year Examination of Microbiology and Immunology

All questions are to be answered:

I- General and Microbial Genetics:

- 1-a- Characters and function of bacterial capsule. (5 marks)
- b- Bacterial conjugation and the role of F factor. (5 marks)

II- Medical Immunology:

- 2-a- Phases of humoral immune response and class switching mechanism. (5 marks)
- b- Immunotolerance. (5 marks)

III- Medical Bacteriology:

- 3-a- Antigenic composition and virulence factors of *Neisseria gonorrhoeae*. (5 marks)
- b- Laboratory diagnosis of diphtheria carrier and susceptibility to infection. (5 marks)
- c- Prophylactic measures against tetanus infection. (5 marks)

**Third Year Final Examination of Microbiology and  
Immunology**

الأسئلة موجودة في عدد ٢ صفحة

**All questions must be attempted::**

**General Microbial and Genetic:**

- 1- Difference between bacterial endospores and fungal spores. (5 marks)
- 2- Transposons . (5 marks)

**Medical Immunology:**

- 1- Tuomers assoaiated antgens. (5marks)
- 2- Difference between T cell & B cell receptors. (5marks)

**Medical Bacteriology:**

- 1- Difference between pinta & yaws. (5 marks)
- 2- Difference between Rhematic fever & glomerulonephritis. (5 marks)
- 3- Difference between tuberculoid & lepromatus leprosy . (5marks)
- 4- Laboratory diagnosis of : (20 marks)
  - A- secondary stage of venereal syphilis .
  - B- a case of diphtheria.
  - C- A case of leptospirosis.
  - D- Diagnosis of TWAR pneumonia.

**Medical Virology:**

- 1- Lab diagnosis of EB virus . (10 marks)
- 2- Vaccination against rabies .

**Medical Mycology:-**

:

- 1- Dermatophytes .
- 2- Fungal mycetoma.

**Nosocomial infections:**

- 1- hand hygine
- 2- disinfectant used to steralize the rubber catheters and endoscopy after practice.



Medical Microbiology And Immunology Department

Third Year Final Examination of Microbiology and Immunology

All questions are to be answered:

I- General and Microbial Genetics:

- 1-a- Structure and mechanism of spore formation. (6 marks)  
b- Transduction and Transposons. (6 marks)

II- Medical Immunology:

- 2-a- Characters and function of T cells. (6 marks)  
b- Immunopotentialiation. (6 marks)

III- Applied and Clinical Bacteriology:

- 3- Enumerate water borne diseases; mention their causative pathogens and Laboratory diagnosis of one of them. (10 marks)  
4- Laboratory diagnosis of:  
a- Brucellosis. b-Tuberculous meningitis (10 marks)  
5- Prophylactic measures against:  
a- Cholera. b- Plague. (6 marks)  
6-a-Rickettsial diseases and their laboratory diagnosis. (6 marks)  
b-The Faculty of Medicine has launched a campaign on " Hand shake is better than infectious kiss" Mention diseases transmitted by droplet infection and their causative pathogens. (4 marks)

VI- Medical Mycology:

- 7- Antifungal drugs. (10 marks)

V- Medical Virology:

- 8-a-Diseases caused by Arboviruses; laboratory diagnosis and prophylaxis of one of them. (6 marks)  
b-Varicella zoster virus. (4 marks)

Good Luck

١- تبدأ امتحانات الشقوي الساعة الثامنة صباحا وغير مسموح بتغيير موعد الامتحان لأي طالب.

٢- يجب الالتزام بعدم كتابة أي شيء باللغة العربية ويستعمل القلم الجاف الأزرق والأسود فقط والإجابة من الجهة اليسرى للكراسة.

Medical Microbiology & Immunology Department

**Third Year Final Examination of Microbiology & Immunology**

**All questions are to be answered:**

**I- General and Microbial Genetics:**

- 1- Differentiate between exotoxins and endotoxins of bacteria. (5 marks)
- 2- Mention the methods of gene transfer and describe the mechanism of **one** process. (5 marks)

**II- Medical Immunology:**

- 3- Differentiate between T and B- lymphocytes . (6 marks)
- 4- Discuss immune reactions during graft rejection. (9 marks)

**III- Applied and Clinical Bacteriology:**

- 5- Enumerate infectious diseases affecting children, describe the morphological characters of the causative pathogen of each and discuss the laboratory diagnostic methods of **one** disease. (12 marks)
- 6- Mention the name of the causative organism and prophylaxis of the following diseases: (12 marks)
  - a- Malignant pustule. b- Enteric fever.
  - c- Cholera. d- Plague.
- 7- Prevention and control of Nosocomial infections. (6 marks)
- 8- Differentiate between members of Brucella species. (5 marks)

**VI- Medical Mycology:**

- 9- Mycetoma is a chronic infection caused by many organism, mention these organisms and discuss the laboratory diagnosis of **one** of them. (10 marks)

**V- Medical Virology:**

- 10- Enumerate parenterally transmitted hepatitis viruses and discuss laboratory diagnosis of **one** of them. (10 marks)

Good luck

١ - مواعيد امتحانات العملى والشفوى كالتالى:

اليوم	الأربعاء	الخميس	الجمعة	السبت	الأحد	الاثنين
التاريخ	٥/١٦	٥/١٧	٥/١٨	٥/١٩	٥/٢٠	٥/٢١
عملى	مجموعة ٤	مجموعة ٥	مجموعة ٦	مجموعة ١	مجموعة ٢	مجموعة ٣
شفوى	مجموعة ٣	مجموعة ٤	مجموعة ٥	مجموعة ٦	مجموعة ١	مجموعة ٢ + المتخلفين من مجموعة ٣

٢ - تبدأ امتحانات العملى والشفوى الساعة الثامنة صباحاً مع تسليم كتاب العملى وغير مسموح بتغيير موعد الإمتحانات لأى طالب.

٣ - يجب الالتزام بعدم كتابة أى شىء باللغة العربية ويستعمل القلم الجاف الأزرق والأسود فقط والأجابة من الجهة اليسرى للكراسة.

**Third Year Final Examination of Microbiology and**  
**Immunology**

الأسئلة موجودة في عدد ٢ صفحة

**All questions must be attempted::**

**General Microbial and Genetic:**

- 1- Difference between bacterial endospores and fungal spores. (5 marks)
- 2- Transposons . (5 marks)

**Medical Immunology:**

- 1- Tumors associated antigens. (5marks)
- 2- Difference between T cell & B cell receptors. (5marks)

**Medical Bacteriology:**

- 1- Difference between pinta & yaws. (5 marks)
- 2- Difference between Rheumatic fever & glomerulonephritis. (5 marks)
- 3- Difference between tuberculoid & lepromatous leprosy . (5marks)
- 4- Laboratory diagnosis of : (20 marks)
  - A- secondary stage of venereal syphilis .
  - B- a case of diphtheria.
  - C- A case of leptospirosis.
  - D- Diagnosis of TWAR pneumonia.

**Medical Virology:**

- 1- Lab diagnosis of EB virus . (10 marks)
- 2- Vaccination against rabies .

**Medical Mycology:-**

- 1- Dermatophytes . (10marks)
- 2- Fungal mycetoma.

**Nosocomial infections:**

- 1- hand hygiene (10 marks)
- 2- disinfectant used to sterilize the rubber catheters and endoscopy after practice.

Clinical Microbiology:

(10 marks)

1- Long Case:

A 45 year old female presents with a fever of 39 and jaundice.

- A. what is the differential diagnosis ? (list at least 5).
- B. If this patient had right upper quadrant tenderness, abnormal liver function tests, and is found to have blood transfusion before the 1990s what could be the likely diagnoses ?
- C. What four diseases are blood products now tested for?
- D. Which types of Hepatitis are fecal-oral transmitted?
- E. Which type of Hepatitis are chronic and can lead to hepatocellular carcinoma?
- F. Which type of Hepatitis has mortality rate in pregnant women?
- G. Which types of Hepatitis are sexually transmitted?
- H. If this patient's serology showed the following : HbsAg positive, HbsAb negative, HBcAb IgM positive, what state of disease would she be in?
- I. Which antigen, if positive indicates infectivity (communicability) to others?
- J. Give two treatments that may be used in Hepatitis B.
- K. If this patient is treated successfully and reaches full convalescence, what will her serology profile be?
- L. If she becomes a chronic carrier what is she at risk of developing?
- M. Describe the immunization schedule for Hepatitis B.

2- Short Case 2:

(5marks)

A 50-year-old man is brought to the emergency room with a cough productive of bloody sputum. He first noticed a cough about 2 months ago, but there was not much sputum. In the past several days his sputum production has increased and become mixed with blood. He reports having lost approximately 7 kg in this time frame as well. He also notes that he had night sweats 2 or 3 nights a week for the past month. He has a 50-pack-year smoking history but no other medical history. On examination, he is a thin, frail-appearing male. His lung exam is notable only for decreased breath sounds diffusely. A chest X-ray shows a cavitary infiltrate of the upper lobe.

1. what is provisional diagnosis for this case?
2. How can you confirm your diagnosis?
3. Write a prescription for this patient.
4. Discuss preventive measures required.

*good luck*



MANSOURA UNIVERSITY  
FACULTY OF MEDICINE

THIRD YEAR EXAMINATION  
MEDICAL PARASITOLOGY

TIME ALLOWED: TWO AND HALF HOURS

May 25, 2009

(Total Marks 75)

\*ANSWER ALL QUESTIONS.

\*TABULATE YOUR ANSWER WHENEVER POSSIBLE.

- I -1 Enumerate two helmenthic and two Protozoal Parasites causing dysentery mention the infective and diagnostic stage for each . (8 Marks)  
2- Mention the Pathogensity and clinical manifestations of Toxoplasmosis. (6 Marks)

- 3- In table mention the habitate, infective stage and intermediate host or vector of the following: (6 Marks)  
a- Paragonimus westermani. b- Hymenolepis diminuta.  
c- Blantidium coli. d- Leishmania tropica.

II-A write about:

- 1- Medical importance of the following (10 Marks)  
a-Sand fly b- lice c- Hard tick  
2- Treatment of scrobion biting . (2 Marks)  
3- The name of the drug of choice for the Treatment of :  
a- Schistosoma mansoni b- Taenia saginata  
c- Trichomonas vaginalis d- Entrobious (4 Marks)  
B-Mention the Parasitological values of the following: (9 Marks)  
1- Patch skin test. 2- Skin snip and muscle snip biopsies.  
3- xeno-diagnosis. 4- Aldhyde test.  
5- Bachman's test. 6- Sabien Feldman dye test.

III-1- Answer the following as shown in between brackts:

- a- Microcytic hypochromic anaemia is a common feature in Ancylostomiasis. (why) (3 Marks)  
b- Parasites affecting the lung. (Enumerate) (5 Marks)  
c- Blindess is common with Onchocerca. (Eplain) (4 Marks)  
d- Giardia lamblia . (Diagnosis) (5 Marks)  
e- Chigger's disease and Shagoma. (Discuss) (3 Marks)  
2- Mention only the name of the Parasite Producing the following clinical Presentaion and mention the habitate. (10 Marks)  
a- Terminal haematuria b- Perianal Pruritis  
c- Rommans sign d- Black water fever  
e-irritant vaginal discharge ( leuchorria)

GOOD LUCK

**MANSOURA UNIVERSITY**  
**FACULTY OF MEDICINE**

**THIRD YEAR EXAMINATION**  
**MEDICAL PARASITOLOGY**

**TIME ALLOWED: TWO AND HALF HOURS** August 20, 2009

**\* ANSWER ALL QUESTIONS.** (Total Marks 75)

**\* TABULATE YOUR ANSWER WHENEVER POSSIBLE.**

- I-1- Enumerate Only (4) Parasites That Cause Anaemia, Mention the Infective and Diagnostic Stage (s) for Each. (8 Marks)  
2- Mention The Pathogenesis and Clinical Pictures of African Trypanosomiasis ( Sleeping Sickness). (6 Marks)  
3- In Table Mention the Habitate , Infective Stage and Intermediate Host or Vector of the Following: (6 Marks)

- a- Fasciola gigantica                      b- Taenia solium.  
c- cryptosporidium Parvum              d- Trichinella spiralis.

II-(A)-Write about :

- 1- Medical Importance of the Following: (10 Marks)

- a- Female anophles      b- Fleas              c- Soft tick (2 Marks)

- 2- Treatment of Sarcoptes Scabiei ( Scabies) (2 Marks)

- 3- The Name of the Drug of choice For the Treatment of: (4 Marks)

- a- Schistosoma Haematobium              b- Hymenolepis nana

- c- Giardia lamblia                              d- Toxoplasmosis

- (B)-Mention the Parasitological Values of the Following: (9 Marks)

- 1- Casoni Test                                      2- Mazzoti Test

- 3- Entero Test                                      4- Antomny Test

- 5- Dispstick Test                                      6- Paris green

III-1- Answer the Following as Shown in Between Brackets:

- a- Swimmer's Itch , Ground Itch and Pubic Itch ( Compare). (3 Marks)

- b- The Parasites of The Large Intestin of man ( Enumerate ). (5 Marks)

- c- The Parasites Transmitted Through Consumption of Pig –Fish – Meat ( Enumerate and Mention the infective Stage ). (6 Marks)

- d- Blindness and Swada are Common in Onchocerca (Explain) (3 Marks)

- e- Calabar Swelling and Onchocerca nadule ( compare ). (3 Marks)

- 2- Mention Only the Name of the Parasite Producing the Following

- Clinical Presentaion and Mention the Habitate. (10 Marks)

- a- Chancre on the Skin.                              b- Rectal Prolapse.

- c- Steatorrhea.                                      d- Perianal Pruritis.

- e- Non Pitting Oedema of the Lomer Limb



MANSOURA UNIVERSITY  
FACULTY OF MEDICINE

THIRD YEAR EXAMINATION  
MEDICAL PARASITOLOGY

TIME ALLOWED : TWO AND HALF HOURS

August 20, 2008

• ANSWER ALL QUESTIONS.

(Total Marks 75)

• TABULATE YOUR ANSWER WHENEVER POSSIBLE.

1. Give an account on the following :
  - a. Entero-test. (3 Marks)
  - b. Immuno- and chemo-prophylaxis for *Leishmania* and malaria. (4 Marks)
  - c. Poisonous insects. (3 Marks)
  - d. *S. japonicum* is the most serious species of blood flukes. Why ? (3 Marks)
2. Differentiate between the following :
  - a. *Coenurus cerebralis* and hydatid cyst. (6 Marks)
  - b. Chopra and patch skin tests. (4 Marks)
  - c. Species of blood flukes (Draw). (6 Marks)
3. Which drug(s) of choice might be effective in treating infection with the following parasites : a) *T. gondii*. b) *T. saginata*. c) *T. vaginalis*. d) *S. mansoni*. (8 Marks)
4. Name the intra-molluscal stages (in serial order), the infective stage and agent(s) of infection of the parasites transmitted by the Egyptian snails. (10 Marks)
5. Enumerate nosocomial parasitic infections in pediatric patients. What kinds of efforts have been made to control the spread of these infections. (9 Marks)
6. Mention the infective stage, habitat and mode of transmission of two parasites transmitted by each of : a) *Ctenocephalus*. b) *Cyclops*. c) *Culicoides*. (12 Marks)
7. A 9-year-old girl suffering from diarrhea, flatulence and epigastric pain. Trichrome-stained stool samples revealed a small number of oval parasites, 12X6  $\mu$ . The structure of each gave the overall appearance of "smiling face". Name and draw the detected parasites. How does the structure of these parasites account for the "smiling face". Describe the pathogenicity and the effective treatment. (7 Marks)

إمتحان العملى والشفوى سيبدأ الساعة الثامنة صباحا :

- يوم الخميس ٢٠٠٨/٨/٢١ : من رقم ٥٠٠٣ إلى رقم ٥٥٥٩

- يوم الجمعة ٢٠٠٨/٨/٢٢ : من رقم ٥٥٦٠ إلى رقم ٦٠٨٢

**Answer all questions :**

**I- Answer as shown between brackets .**

- 1- Fascioliasis ( Pathology ) 5 marks
- 2- Cercariae ( Types & Diagrams ) 5 marks
- 3- Schistosomes ( Mode of infection ) 5 marks
- 4- Hydatid cyst ( Diagnosis ) 5 marks
- 5- Visceral larva migrans ( Diagnosis ) 5 marks

**II- Differentiate between :-**

- 1- Relapse and recrudescence . 5 marks
- 2- Pathology of Nagleria fowlen and Acanthamoeba. 5 marks
- 3- Trypanosomal chance & chagoma. 5 marks
- 4- Colabar swelling & onchocerca nodules . 5 marks

**III- Short accounts on :-**

- 1- Laboratory diagnosis of kala – azar. 5 marks
- 2- House dust mite. 5 marks
- 3- Diagnosis of Myiasis . 5 marks
- 4- Medical importance of Fleas . 5 marks
- 5- Creeping Eruption. 5 marks
- 6- Mode of infection with Toxoplasmosis. 5 marks

***Good Luck***

Mansoura University  
Faculty of Medicine  
Parasitology Department

Short Essay Questions  
Time Allowed: 2 Hours  
Date: 20/5/2007

Final Parasitology exam  
For 3<sup>rd</sup> year medical students

**Remark:** Please answer all questions in serial numbers to avoid mistakes in the final total marks.

**Question (A): Helminthology:** Mention the following:

- 1- Two trematodes affecting the liver: draw their diagnostic stages and methods of infection in each. (6 marks)
- 2- Nematode parasites that can be detected in peripheral blood or transmitted through blood transfusion: write about their vectors, infective stage and clinical manifestations of the most common one in Egypt, together with the drug of choice. (12 marks)
- 3- Draw the diagnostic stages of the following parasites: *Tenia saginata*, *Hymenolepis nana*, *Hymenolepis diminuta*, *Ascaris lumbricoides*, *Enterobius vermicularis*, *Ancylostoma duodenal* and *Trichostrongylus*. (7 marks)

**Question (B): Protozoology:** Mention the drugs used in the treatment of the following parasitic diseases, then answer in between brackets:

- 4- Amoebic dysentery (sites of extraintestinal invasion and their diagnostic stages). (6 marks)
- 5- Toxoplasmosis (methods of infection and clinical presentations). (6 marks)
- 6- Cutaneous and mucocutaneous leishmaniasis (vector, infective stage, site of lesion, local and systemic therapy). (10 marks)
- 7- *Plasmodium malaria* (vector, malarial paroxysm, cause of black water fever and radical treatment). (8 marks)

**Question (C): Entomology:**

- 8- *Demodex folliculorum* and *Sarcoptes scabiei* are mites of medical importance in dermatology department: name the specific disease for each, the pathogenesis in the common affected sites, diagnoses and treatment. (10 marks)
- 9- *Glossina palpalis* and *G. morsitans*, *Triatoma megista* (winged bug) and *Sand fly* Act as vectors with diseases transmissions: mention their medical importance and control. (10 marks)

**Good Luck**

**Dr. Salwa El-Malky**

**Final Parasitology Exam  
For Third Year Medical Students**

- Answer all questions.
- Use drawing of diagnostic stages.

- A) The following clinical presentations indicates parasitic diseases, mention the causative parasite, infective stage with mode of transmission, diagnostic stages & treatment.
- 1- Constant abdominal discomfort, colicky pain, diarrhea & eosinophilia with history of eating Mugil and Tilapia fish 2-3 weeks before.
  - 2- Chills & fever with persistent cough & haemoptesis, sputum is viscous & flecked with dark golden brown particles & may be bloody.
  - 3- Terminal haematuria with dysuria & frequent micturation.
  - 4- Hunger pain, discomfort, colic diarrhea, constipation & indigestion, loss of appetite and weight with migration of gravid segments out of the anus.
  - 5- Complaint of a child: abdominal pain, anorexia, vomiting and diarrhea, nervous manifestation, dizziness, insomnia & convulsions. (20 Marks, each 5 Marks).
- B) 1- Define then mention opportunistic parasites & their role in immunocompromized individuals. (6 Marks)
- 2- Define and talk about Nosocomial and Laboratory acquired parasitic infections. (6 Marks)
- 3- Mention the protozoan parasites affecting the brain & the diagnosis of one, with drawing of the diagnostic stage. (8 Marks)
- 4- Comment briefly on female patient suffering from itching and burning sensation (vaginitis) with profuse yellowish irritant discharge, dysuria, frequent micturation and dyspareunia. (5 marks).
- C) **Answer the following questions:**
- 1- The causative mite of scabies, sites, clinical presentations and diagnosis. (5 Marks).
  - 2- The role of arthropods in diseases transmission, talk briefly with 3 examples. (5 marks).
  - 3- Define myiasis, then mention its diagnosis and treatment. (5 marks).
  - 4- Medical importance and control of house dust mites (allergic mites). (5 marks).

*Good Luck*

Remark: Students that don't take the degree of the practical book, must bring their books at days of the oral exam.

*Dr. Salwa El-Hakky*



**Parasitology Examination**

**Answer all questions :**

**Illustrate your answers by diagrams :**

- 1- Enumerate the parasites that may cause dysentery. Mention the habitat, method of infection and describe the infective stage for each .  
(15 Mark)
- 2- Write an account on Paragonimus westermani , regarding its morphology , life cycle and laboratory diagnosis .  
(10 Mark)

**3- Answer as shown in-between brackets :**

- a- Microfilariae ( Differentiate by diagrams )
- b- Swimmer's and ground itch ( Compare )
- c- Toxoplasmosis ( Infective stages and diagnosis ) .
- d- Gametogony and endodyogony ( Compare ) .
- e- Scolices of cestodes ( Differentiate by diagrams ) .  
(25 Mark)

**4- Write short notes on :**

- a- Mites .
- b- Medical importances of human lice .
- c- Baermann's technique
- d- Loeffler's syndrome

(20 Mark)

GOOD LUCK ))

**تعليمات لجميع الطلاب :**

- ١- الطلاب الذين تخلفوا عن تسليم كراسات العملى لهم فرصة لتسليمها أثناء الإمتحان الشفوى حتى لايفقدوا الدرجة .
- ٢- الإمتحان الشفوى لكل طالب امام لجننتين .
- ٣- على كل طالب التأكد من التوقيع امام لجنتى الشفوى حتى لايعتبر غائبا .

Mansoura University  
Faculty of Medicine  
Parasitology Dept .

Third-Year Exam .  
17/8/2005  
Time : 2 hours

Parasitology Examination

Answer all questions :

Illustrate your Answers by diagrams :

- 1- Enumerate the species of human Schistosomes-Mention the habitat , Intermediate host , reservoir host and describe by diagrams the diagnostic stage for each species .

(10Mark)

- 2- Enumerate the Protozoal parasites causing diarrhea . Mention the habitat and describe by diagrams the infective stage for each parasite

(10 Mark)

**3-Answer as shown in-between brackets :**

- a- Operculated eggs ( Compare by diagrams) .
- b- Toxoplasma and Cryptosporidium oocysts (Compare by diagrams) .
- c- Leucorrhoea ( Morphology of the causative parasite ) .
- d- Parasitic anaemia ( infective stage for five parasitic causes ) .
- e- Human filarial parasites (Habitat and vector for each ) .

(25 Mark)

**4- Write short notes on :**

- a- Myiasis .
- b- Medical importance of Ticks .
- c- Entero - test (duodenal string test) .
- d- Parasitic causes of Lymphadenopathy .
- e- Trichinosis

(25 Mark)

( GOOD LUCK )

تعليمات لجميع الطلاب :

١- الإمتحان العملى لجميع الطلاب غدا الخميس ٢٠٠٥/٨/١٨

٢- الإمتحان الشفوى لجميع الطلاب بعد غد الجمعة ٢٠٠٥/٨/١٩

٣- تبدأ الإمتحانات العملية والشفوية الساعة الثامنة صباحا



بسم الله الرحمن الرحيم

Mansoura University  
Faculty of Medicine  
Parasitology Dept .



Mid-year Exam  
18/1/2005  
Time : One Hour

### Parasitology Examination

#### All questions to be answered:

1- In a Table form mention the habitat, diagnostic stage, infective stage and reservoir host (s) for each of the following parasites :

- a- Heterophyes heterophyes.
- b- Trichinella spiralis .
- c- Onchocerca volvulus .
- d- Trichostrongylus colubrifomis.
- e- Diphylobothrium Latum.

(10 Marks )

2- Answer as inbetween brackets:

- a- Verminous pneumonia (Name of 2 Parasits causing it)
- b- Dysentry (Name of 2 Helminthes causing it)
- c- Enterobius Vermicularis ( Morphology of the Male)
- d- Terminal haematuria (Intermediate host and infective stage of the causative parasite (s) )
- e- Parasites having eggs with distinct bipolar morphological characteristics ( Mention the infective stage of 2 of these parasites

(10 Marks)

3- Give an account on :

- a- Precautions followed in the treatment of parasites showing the internal auto- infection phenomenon .
- b- The parasitological value of blood examination ( Count or film) at day time

(5 Marks )

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(GOOD LUCK)

Mansoura University  
Faculty of medicine  
Parasitology Dept.

Re-sit Mid-Year Exam.  
6/3/2005  
Time : one hour

**Parasitology Exam**

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**Answer all questions :**

**1- For each of following clinical conditions, mention the name of the causative parasite , its habitat , diagnostic and infective stages .**

- a- Liver rot .
  - b-Exophthalmos .
  - c- Ground itch .
  - d- Fugitive swelling .
  - e- Vaginal discharge accompanied with pruritus .
- (10 Marks)

**2- Answer as shown inbetween brackets :**

- a- Enterobius vermicularis ( Precautions during its diagnosis) .
- b- Trichinosis ( Infective stage and hosts) .
- c- Male Schistosoma haematobium ( Morphology) .
- d- Cystic larval stage in the liver ( Method of infection and habitat of the adult stage ) .
- e- Pathogenic free living amoebae (Mention the disease caused by each) .

(10 Marks)

**3- Write short account on :**

- a- Prophylactic measures at home for parasites mediated through consumption of undercooked meat .

- b- Sinistral snail-mediated helminths in Egypt regarding habitat and the size of diagnostic stages of each .
- (5 Marks)

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**(GOOD LUCK)**

Thid year examination  
(Parasitology)

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**Answer all questions:**

- 1-Enumerate the human Nematode parasites transmitted to man by ingestion of their larvae , mention and describe the diagnostic stage(s) for each. (8 marks)
- 2-A Case suffering from chronic intermittent painless diarrhea, stool examination demonstrate motile Rhabditiform larvae and blood examination showed 30% oesinophilia , what is the possible parasitic cause?, mention the methods of infection and treatment of this case (7marks)
- 3-Enumerate the protozoal parasitic stage(s) that inhabit peripheral blood , mention their sites, infective stage(s) and mode of infection for each one . (15 marks)
- 4-Differentiate between :- (18 marks)
  - a- Genetal systems of human schistosomes . (3 marks)
  - b- Mature segments of human cestodes (by diagrams).(5 marks)
  - c- Trichomonads . (4 marks)
  - d- In a table, between Ixodidae and Argasidae. (6 marks)
- 5- Answer the following as mentioned in between brackets. (22 marks)
  - a-Saprozoonosis , paratenic hosts and apportunestic protozoal parasites (define with two examples for each) . (6 marks)
  - b- Toxoplasmas (laboratory diagnosis and treatments).(4 marks)
  - c-Steatorrhoea (causes) . (3 marks)
  - d- Fleas (medical importances). (5 marks)
  - e- Aquatic stages of mosquitoes (control) . (4 marks)

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(GOOD LUCK)

**Answer all questions :-**

**1- Enumerate the human tissue cestode larvae, mention the infective stage and methods of infection in each .(7 Marks)**

**2- Answer the following as mentioned inbetween brackets :-  
(10 Marks)**

- a- Sheathed microfilariae ( Compare )
- b- Operculated eggs (Compare)
- c- Hookworms (Pathology and clinical aspects )
- d- Human fascioliasis (Types )

**3- Describe by diagrams the following :- (8 marks )**

- a- Trophozoite and cysts of *Entamoeba histolytica* .
  - b- Trematode cercariae .
  - c- *Ascaris* eggs .
- 

(GOOD LUCK)

Parasitology

Answer all questions :-

1-A Patient represented with episodes of chills and fever , persistent cough and haemoptysis, sputum examination showed avoidal eggs with flattened operculum .

- a- Describe by diagrams the possible parasitic cause (5 marks )
- b- Mention the infective stage (s) . (3 marks )
- c- Treatment of this parasite . (2 marks )

2- Differentiate between :- (20 marks)

- a- Human parasitic amoebic cysts.
- b- Types of myiasis according to Diptera's habits with examples.
- c- Immature stages of mosquitoes .
- d- Cyclopropagative and cyclodevelopmental transmission with two examples for each .

3- Mention the following :- (20 marks )

- a- Two helminth parasites inhabit the lumen of the large intestine and describe the infective stage (s) of each .
- b- Free living parasites and describe the infective stage (s) of each .
- c- Arthropodes affecting human skin and the diseases caused by each one .
- d- Protozoa affecting the liver and mode of infection for each one.

4- Write on :- (20 marks )

- a- Coccidial oocysts in human stool samples (morphology )
- b- Anaemia and parasitic infections .
- c- Morphology of cestode scoleces .
- d- Sparganosis ( definition and mode of infections)

(GOOD LUCK)

امتحان العملى لجميع الطلاب يوم الجمعة الموافق 20/8/2004 وامتحان الشفهي لجميع الطلاب يوم السبت الموافق 21/8/2004 الساعة 9 صباحا ومن يتخلف يلغى امتحانه



**PARASITOLOGY**

**Answer all questions :-**

- 1- Enumerate four protozoal parasites that affect the liver, mention the infective stage and mode of infection in each (10 Marks).
- 2- Enumerate helminthic diseases biologically transmitted by arthropodes, mention their vectors and mode of transmission in each. (10 Marks).
- 3- In a table differentiate between Argasidae and Ixodidae. (10 Marks).
- 4- Mention the clinical picture and laboratory diagnosis of two nematodes that inhabit the large intestine. (10 Marks).
- 5- Write on :-
  - a- Treatment of Hydatidosis.
  - b- Posterior-nuclear shift.
  - c- Xeno-diagnosis.
  - d- Sparganosis (definition and mode of infection). (10 Marks).
- 6- Answer the following as mentioned in between brackets:-
  - a- Diseases transmitted by lice (causative organisms and mode of infection in each).
  - b- Reservoir hosts (Define with examples to haemosomatic flagellate).
  - c- The skin penetrations act as a portal of entry in Nematode infections (mention three different examples).
  - d- Lung Fluke (By diagram describe its life cycle). (10 Marks).
- 7- Diagrammatically compare between:-
  - a- Non cooched fleas.
  - b- Anopholine and Culicine larvae.
  - c- Scolexis of Cestodes.
  - d- Coccidial Oocysts in the stool. (10 Marks).

الإجابة باللون الأزرق فقط والرماس للرسم ممنوع الإجابة من الجهة اليمنى من الكراس ممنوع وضع علامات على كراس الإجابة  
الإنزام بجدول العملى والشفهى وممنوع تغير المواعيد امتحان العملى والشفهى يبدأ الساعة الثامنة صباحا  
بترتيب أرقام الجلوس بالقسم

( GOOD LUCK ).